THE

INDIAN ANTIQUARY,

A JOURNAL OF ORIENTAL RESEARCH

IN

[illegible]ÆOLOGY, EPIGRAPHY, ETHNOLOGY, GEOGRAPHY, HISTORY, FOLKLORE, LANGUA[illegible]
LITERATURE, NUMISMATICS, PHILOSOPHY, RELIGION, &c. &c.,

EDITED BY

JOHN FAITHFULL FLEET, C.I.E.,
BOMBAY CIVIL SERVICE,

AND

RICHARD CARNAC TEMPLE,
CAPTAIN, BENGAL STAFF CORPS

VOL. XVII.—1888.

BOMBAY:
PRINTED AND P[illegible] EDUCATION SOCIETY'S PRESS [illegible]
[illegible] TRÜBNER & C[illegible] PARIS: E. LEROUX. BERLIN: A. ASHER & C[illegible] N[illegible] YO[illegible] WESTERMANN & C.
B[illegible] E[illegible]CATION S[illegible] PRESS

CONTENTS.

The names of Contributors are arranged alphabetically.

CORRESPONDENCE AND MISCELLANEA.

BOOK NOTICES.

ILLUSTRATIONS.

ERRATA IN VOL. XVII.

p. 3, Table II., opposite Chitrâ, in the last column, *for* 183 28 10, *read* 184 28 10.

p. 120, Text line 1, *for* Hiranya *read* Hiranya- .

" " line 16, *for* bhuvanâanta |, *read* bhuvanâanta-.

p. 146 *a*, last line; *for* preceding, *read* following.

p. 157 *b*, lines 24, 25, *read* 10000 — (1800 + 200 + 9939) = 10000 — 1939 = 8061.

p. 160 *a*, line 29, *for* 66277·5056, *read* 66277·5002 *And, as the result of this, in lines* 31 *to* 41 *read*, Hence the increase in 1000 years is 13255·5000; in 100 years, 1325.5500; and in 59·75 days, 2·1684. And *b* for 5000 years is 499·8; for 1000 years, 500·0; and for 100 years, 450·0. Therefore, as above —

	b
A. D. 1899	581·8
5000 years	499·8
59·79 days	168·4
Kaliyuga 0 ...	250·0

Accordingly *b*. for A. D. 1899 is 581·8; or, the fraction being larger than ½, in round numbers 582

" *b*, line 11, *for* 1204, *read* 120·4.

" *b*, note 17; *cancel this note.*

p. 163, Table 5, and p. 164, Table 6. As we have seen under the correction notified above for p. 160 *a*, line 29 *b*. for A. D. 1899 is in round numbers 582; whereas in Table 5 it is given as 587. Following the same process, all the figures in Table 5, col. b, should, strictly speaking, be decreased by 5; when they would be in accordance with the revolutions of the moon's apsis as given in the text of the *Sûrya-Siddhânta*. Three or four hundred years ago, however, the Hindu astronomers applied to the elements of the *Sûrya-Siddhânta* a correction, technically called *bîja*, which from that time has been generally adopted in calculations. In Table 5, col. b, the figures, all through, as they stand, are correct for the elements of the *Sûrya-Siddhânta* as modified by this *bîja*. And, as the Table is for the nineteenth century A. D., when the *bîja* has to be applied, the inclusion of the *bîja* in it is proper and correct The *bîja*, however, has to be rejected for the centuries anterior to the time of its introduction; and this is to be effected by a modification of Table 6. Here again (Table 6), in col. b, the figures, all through, as they stand, include the *bîja*. In the case of the centuries marked 15 to J. 3, in which the *bîja* is not to be applied, in col. b, correct the numbers from 185 to 785, inclusive, by substituting 0 for the last figure, thus, for 185, read 180; for 484, read 480; and for 785, read 780. Then, with Table 5 as it stands, and with Table 6 thus corrected, the final results will be in accordance with the text of the *Sûrya-Siddhânta* without the *bîja*. For the centuries marked G. 1 and G. 2, the application of the *bîja* is proper and necessary; and the figures 972 and 486 are correct, as they stand.

p. 167, Table 7, opposite 2nd August (common year), *for* b 720, *read* 730. Opposite 13th August *read* b 129 *for* 126, and opposite 14th August *read* b 166 *for* 163.

p. 168, Table 7, opposite 12th October (common year *for* d 630, *read* 639.

p. 172, Table 10, opposite the argument 950, *for equation* 76, *read* 80.

" Table 11, opposite the argument 200, *for equation* 4·10, *read* 14·10

p. 219, note 16, line 5, for *Ârdrâ*, read *Ârdrâ-*, and line 11, *omit the word* March

p. 239 *b*, line 46, *for* trayô, *read* trayô-.

p. 240 *b*, last line, *omit the comma at the end of the line.*

p. 248 *b*, line 7, *for* Which, *read* which

p. 250 *a*, line 20, *for* ithau, *read* tithau.

" *b*, line 11, *for* punar vasu-, *read* punarvasu-.

p. 251 *b*, last line, *read* (No. 17 instead of No. 9).

p. 252 *a*, line 6, omit the comma after *tithi*

p. 270, in the column for the Tithi-śuddhi, *opposite* 720, *for* 1 9, *read* 1 90; *and opposite* 740, *for* 1 6, *read* 1 60.

p. 271, in the column for the Tithi-Kêndra, *opposite* 1040, *for* 1 45, *read* 1 48.

p. 315 *b*, last line, *for* Varâhı-, *read* Varâha-.

p. 336 *b*, line 7 from the bottom, *for* mâna - vijaya-râjyê, *read* mana-vijaya-râjyê

THE INDIAN ANTIQUARY,

A JOURNAL OF ORIENTAL RESEARCH.

VOLUME XVII.—1888.

THE TWELVE-YEAR CYCLE OF JUPITER.

BY SHANKAR BALKRISHNA DIKSHIT; BOMBAY EDUCATIONAL DEPARTMENT.

THE names of the *saṁvatsaras*, or years, of the **Twelve-Year Cycle of Jupiter,** are determined in accordance with the following rule in the *Bṛihat-Saṁhitâ* of Varâhamihira, adhyâya viii. verse 1;—

Nakshatrêṇa sah=ôdayam
upagachchhati yêna dêvapati-mantrî[1] ।
tat-saṁjñaṁ vaktavyaṁ
varshaṁ mâsa-kramêṇ=aiva ॥

"With whatever *nakshatra* (Jupiter) the counsellor of (Indra) the lord of the gods attains (*his*) rising, the year is to be spoken of (*as*) having the appellation of that (*nakshatra*), in accordance with the order of the months."

Here, by the word *udaya*, 'rising,' we have to understand, not the daily rising of Jupiter, but his **heliacal rising.** Jupiter becomes invisible for some days before and after his conjunction with the sun. The sun's daily motion is faster than that of Jupiter. So, when the sun in his course comes near Jupiter, the latter becomes invisible, on the west side of the horizon; and he is then said to set. He remains from twenty-five to thirty-one days in this state of invisibility. And, when he is left behind by the sun, he again becomes visible, in the east; and then he is said to rise. Generally, in India, when the interval between the daily settings or risings of the sun and Jupiter amounts to forty-four minutes (of time), then the so-called setting or rising of

[1] The reading that I give is from an old manuscript in my possession. But the commentator, Utpala, explains the verse with the reading—*nakshatrêṇa sah=ôdayam astaṁ vâ yêna yâti sura-mantrî,*—"with whatever *nakshatra* (Jupiter) the counsellor of the gods attains (*his*) rising or setting." It is curious that the text, in my manuscript copy, stands as given above. The copyists, however far they might go wrong in ordinary transcribing, could not, unless intentionally, turn the letters मस्तं वा येन याति सुर, if they were original at all, into मुपगच्छाति येनदेवपति. And Utpala himself gives the note—*Ṛishiputr-âdibhiḥ udaya-nakshatra-mâsa-saṁjñâ-kramêṇa varshaṁ jñâtavyam ity=uktam,*—"it is said by Ṛishiputra and others, that the year is to be known according to the order of the name of the month of the *nakshatra* of the rising (*of Jupiter*)." Also, of the other authorities to be mentioned and treated fully in a continuation of this article, amounting to not less than ten, which I find giving the rule of naming the years of the cycle according to the risings of Jupiter, all, except the *Sûrya-Siddhânta*, make each year take its name from only the rising of the planet; not from its setting. In the *Sûrya-Siddhânta*, xiv. 17, the text is —*Kârttik-âdîni varshâṇi Gurôr ast-ôdayât tathâ*—"so the years Kârttika and the others (*that follow*), (*are to be named*) from the setting or rising of Jupiter." But there also, the commentator, Raṅganâtha, remarks—*idânîm udaya-varsha-vyavahârô gaṇakair gaṇyatê,*—"at the present time, the practice of (*naming*) the year by the rising, is taken into account by astronomers."—[The reading in the text above, is the one adopted by Kern, in his edition of the *Bṛihat-Saṁhitâ*, p. 47. His translation (*Jour. R. As Soc.* N. S. Vol. V. p. 45) is — "each year (during which Jupiter completes a twelfth part of his revolution) has to bear the name of the lunar mansion in which he rises; the years follow each other in the same order as the lunar months." Both in his "Various Readings," p. 6, and in the note to his translation, he notices the reading *sah=ôdayam astaṁ vâ yêna yâti sura-mantrî*. But he points out that "the comparison of the MSS leaves little doubt that this reading is a correction, suggested by the remark of Utpala, that, in case the planet should set in one and rise in another *nakshatra*, only that name must be taken which agrees with the order of the month."—J. F. F.]

Jupiter, *i.e.* his heliacal setting or rising, takes place.

To such a system, as is taught in this verse of Varahamihara, and by several other authorities, of determining the commencement of a *saṁvatsara* of the Twelve-Year cycle and of naming it, from Jupiter's heliacal rising, I would give the name of the **heliacal rising-system,** in order to distinguish it from the other system in which the duration and name of a *saṁvatsara* of the twelve year cycle are determined from the particular sign of the zodiac in which Jupiter stands with reference to his mean longitude, and which latter system, to be treated more fully in a continuation of this article, I would name the **mean-sign-system.**[2]

Now, the years of the Sixty-Year Cycle of Jupiter, and of the Twelve-Year Cycle according to the mean-sign system are determined by his mean longitude,[3] which sometimes differs from his apparent longitude by as much as fifteen degrees. But, as the disappearance or reappearance of Jupiter is no imaginary thing, it is evident that it can be calculated, and is to be calculated, only according to Jupiter's actual place, that is his apparent longitude (or right ascension), and not from his mean longitude. And, consequently, the beginning of each *saṁvatsara* of the Twelve-Year Cycle depends on **Jupiter's apparent longitude** at the time of his heliacal rising.

Three systems of determining the *nakshatra* with which the heliacal rising of Jupiter takes place, will be explained below. And, in connection with all three systems, an important point may be noticed here. One revolution of Jupiter, in the zodiac, is completed in about twelve years; and, in twelve years, there are twelve revolutions of the sun (that is of the earth). So that, in this period of about twelve years, there are only eleven conjunctions of the sun and Jupiter. Therefore, in twelve years there are only eleven heliacal risings of Jupiter. The interval between two risings is generally 399 days. And thus, as the *saṁvatsaras* of the Twelve-Year Cycle begin with the heliacal risings of Jupiter, **there are only eleven saṁvatsaras in twelve years;** the duration of each being about 400 days, and one *saṁvatsara* being altogether omitted.

The **names of the lunar months** are used as the names of the *saṁvatsaras* of the Twelve-Year Cycle of Jupiter. And the names of these months are given to the *saṁvatsaras*, in accordance with the particular *nakshatra* in which Jupiter's heliacal rising takes place. Of the twenty-seven *nakshatras*, two are assigned to each of nine of the twelve months; and three to each of the remaining three months. The rule for this is given in the *Bṛihat-Saṁhitâ*, viii. 2:—

Varshâṇi Kârttik-âdîny=
    âgnêyâd bha-dvay-ânuyôgîni ı
kramaśas tri-bhaṁ tu pañchamam
    upântyam antyaṁ cha yad varsham ıı

"The years Kârttika, and others (*that follow*), combine two *nakshatras*, from (*the nakshatra*) belonging to Agni (*as the starting-point*),[4] in regular succession; but that year which is the fifth, (*or*) the last but one, or the last, has three *nakshatras*."[5] And, from this and similar authorities, we obtain the results exhibited in Table I., on the upper part of page 3 below, for the naming of the *saṁvatsaras* from the *nakshatras*.[6]

---

[2] I shall discuss it in full on another occasion. It does not apply to the Gupta inscriptions, with special reference to which this paper has been written. The *saṁvatsaras* in those inscriptions are proved only by the heliacal-rising system now given by me; and there is not the least doubt of its being in use, and of its having been applied in those records.

[3] The mean longitude of a heavenly body is the longitude of an imaginary body, of the same name, conceived to move uniformly with the mean motion of the real body.

[4] *i.e.* from Kṛittikâ. Agni is the regent of the *nakshatra* Krittikâ, which was, at one time, the first in order of the lunar mansions.

[5] [Kern's text is the same. His translation is—"the years Karttika and following comprehend two lunar mansions beginning with Krittikâ, and so on in regular succession, except the fifth, eleventh, and twelfth years, to each of which appertain three asterisms."—J. F. F.]

[6] I should state, however, that there is a little difference of opinion on this point. Utpala, the commentator on the *Bṛihat-Saṁhitâ*, has discussed it at length; and arrived at the conclusion which is exhibited in Table I. In the ancient and modern works that I have referred to, I find ten authorities,—and such ancient names as those of Vṛiddha-Garga and Kaśyapa among them,—giving the rule regulating the names of the *saṁvatsaras* of the Twelve-Year Cycle by the *nakshatras*. Out of these ten, Garga (not Vṛiddha-Garga), and Parâśara, as quoted by Utpala,—but these two only,—hold that the tenth and eleventh months, Śrâvaṇa and Bhâdrapada, have three *nakshatras* each; *viz.* Śravaṇa, Dhanishṭhâ and Śatatârakâ, are assigned to Śrâvaṇa; and Purva-Bhâdrapadâ, Uttarâ-Bhadrapadâ, and Rêvatî, to Bhadrapada; and, consequently, Âśvina has only Aśvini and Bharaṇî.

TABLE I.

Regulation of the Names of the Saṁvatsaras from the Nakshatras.

Names and Grouping of the Nakshatras.	Names of the Months to be allotted to the Saṁvatsaras.
Kṛittikâ; Rôhiṇî	Kârttika.
Mṛiga; Ârdrâ	Mârgaśîrsha.
Punarvasu; Pushya	Pausha.
Âślêshâ; Maghâ	Mâgha.
Pûrvâ-Phalgunî; Uttarâ-Phalgunî; Hasta	Phâlguna.
Chitrâ; Svâti	Chaitra.
Viśâkhâ; Anurâdhâ	Vaiśâkha.
Jyêshṭhâ; Mûla	Jyêshṭha.
Pûrvâ-Ashâḍhâ; Uttarâ-Ashâḍhâ; (Abhijit)	Âshâḍha.
(Abhijit); Śravaṇa; Dhanishṭhâ	Śrâvaṇa.
Śatatârakâ; Pûrvâ-Bhâdrapadâ; Uttarâ-Bhâdrapadâ	Bhâdrapada.
Rêvatî; Aśvinî; Bharaṇî	Âśvina.

TABLE II.

Longitudes of the Ending-points of the Nakshatras.

Order of the Nakshatras.	System of Equal Spaces.			Systems of Unequal Spaces.						
				Garga System.				Brahma-Siddhânta System.		
	Deg.	Min.	Sec.		Deg.	Min.	Sec.	Deg.	Min.	Sec.
Aśvinî	13°	20′	0″	......	13°	20′	0″	13°	10′	35″
Bharaṇî	26	40	0	½	20	0	0	19	45	52½
Kṛittikâ	40	0	0	......	33	20	0	32	56	27½
Rôhiṇî	53	20	0	1½	53	20	0	52	42	20
Mṛiga	66	40	0	......	66	40	0	65	52	55
Ârdrâ	80	0	0	½	73	20	0	72	28	12½
Punarvasu	93	20	0	1½	93	20	0	92	14	5
Pushya	106	40	0	......	106	40	0	105	24	40
Âślêshâ	120	0	0	½	113	20	0	111	59	57½
Maghâ	133	20	0	......	126	40	0	125	10	32½
Pûrvâ-Phalgunî	146	40	0	......	140	0	0	138	21	7½
Uttarâ-Phalgunî	160	0	0	1½	160	0	0	158	7	0
Hasta	173	20	0	......	173	20	0	171	17	35
Chitrâ	186	40	0	......	186	40	0	183	28	10
Svâti	200	0	0	½	193	20	0	191	3	27½
Viśâkhâ	213	20	0	1½	213	20	0	210	49	20
Anurâdhâ...	226	40	0	......	226	40	0	223	59	55
Jyêshṭhâ	240	0	0	½	233	20	0	230	35	12½
Mûla	253	20	0	......	246	40	0	243	45	47½
Pûrvâ-Ashâḍhâ	266	40	0	......	260	0	0	256	56	22½
Uttarâ-Ashâḍhâ	280	0	0	1½	280	0	0	276	42	15
(Abhijit)		....		(Balance)		....		280	56	30
Śravaṇa	293	20	0	......	293	20	0	294	7	5
Dhanishṭhâ	306	40	0	......	306	40	0	307	17	40
Śatatârakâ	320	0	0	½	313	20	0	313	52	57½
Pûrvâ-Bhâdrapadâ... ...	333	20	0	......	326	40	0	327	3	32½
Uttarâ-Bhâdrapadâ ...	346	40	0	1½	346	40	0	346	49	25
Rêvatî	360	0	0	......	360	0	0	360	0	0

Now the 27th part of the ecliptic circle is called a **nakshatra.** And 360 degrees, divided by 27, gives 13 degrees, 20 minutes (of arc). Therefore, there is this much distance from the beginning of one *nakshatra* to the beginning of the next following. And, when the longitude of a heavenly body exceeds nil, but does not exceed 13 degrees 20 minutes, it is said to be in Aśvinî;[7] and so on. The longitudes of the ending points of all the *nakshatras*, on this **system of equal spaces**, are given in the last column but two in Table II., on the lower part of page 3 above. And generally, whenever we meet with a *nakshatra* with reference to the place of a heavenly body, that *nakshatra* is to be taken in the above sense.

There is, however, a **second method of naming the** nakshatras with reference to the places of heavenly bodies. And, though it has now gone almost out of use, yet it was undoubtedly prevalent to a great extent in early times, and was much made use of, on important religious occasions at least. The chief feature of it is, that the space on the ecliptic allotted to each *nakshatra* is not equal. Fifteen *nakshatras* are held to be of an equal average space; but six, of one and a half times the average; and six others, of only half the average.

A system of unequal spaces, according to this method, is referred to in some of the verses from the *Garga-Saṁhitâ*, which are quoted by Utpala in his commentary on the *Brihat-Saṁhitâ*. The commentary, with the passages quoted in it, runs—

Tathâ cha Gargaḥ ।
Uttarâś cha tath=Âdityaṁ Viśâkhâ ch=aiva Rôhiṇî ।
êtâni shaḍ adhyardha-bhôgâni ॥
Paushn-Âśvi-Kṛittikâ - Sôma - Tishya - Pitrya-Bhag-âhvayâḥ
Sâvitra-Chitr-Ânûrâdhâ Mûlaṁ Tôyaṁ cha Vaishṇavaṁ
Dhanishṭh=Âjaikapâch=ch=aiva sama-vargaḥ prakîrtitaḥ ।
êtâni pañchadaśa sama-bhôgâni ॥
Yâmy-Aindra-Raudra-Vâyavya-Sârpa-Vâruṇa-saṁjñitâḥ ।
êtâni shaḍ ardha-bhôgâni ॥

"And so Garga (*says*), 'the Uttarâs (*i.e.* Uttarâ-Phalgunî, Uttarâ-Ashâḍhâ, and Uttarâ-Bhâdrapadâ), and Âditya (Punarvasu), Viśâkhâ, and also Rôhiṇî;' these six (*are*) of one-and-a-half times (*the average*) longitude. '(*The nakshatras*) of which the names are Paushṇa (Rêvatî), Âśva (Aśvinî). Kṛittikâ, Sôma (Mṛiga), Tishya (Pushya), Pitrya (Maghâ), and Bhaga (Pûrvâ-Phalgunî), (*and also*) Sâvitra (Hasta), Chitrâ, Anûrâdhâ, Mûla, Tôya (Pûrvâ-Ashâḍhâ), and Vaishṇava (Śravaṇa), (*and*) Dhanishṭhâ, and also Ajaikapâd (Pûrvâ-Bhâdrapadâ); (*this class of nakshatras*) is called the equal class;' these fifteen (*are*) of equal (*average*) longitude. '(*The nakshatras*) which have the appellations of Yâmya (Bharaṇî). Aindra (Jyêshṭhâ), Raudra (Ârdrâ), Vâyavya (Svâti), Sârpa (Âślêshâ), and Vâruṇa (Śatatârakâ);' these six (*are*) of half (*the average*) longitude."

In this system, which I would name the **Garga system of unequal spaces,** the number of the *nakshatras* is twenty-seven, as usual. The average space of a *nakshatra*, therefore, is 13 degrees, 20 minutes; a one-and-a half space is 20 degrees; and a half space is 6 degrees, 40 minutes. The longitudes of the ending-points of all the *nakshatras*, according to this system, are given in the last column but one in Table II., on the lower part of page 3 above; and the entries of ½ and 1½ in the sub-column, mark the spaces which differ from the average space. Nârada and Vasishṭha give this system in the same way as Garga. It seems to have originated in the fact that the distances between the chief stars, called *yôga-târâ*, of the different *nakshatras*, are not equal. The distance is naturally expected to be 13 degrees, 20 minutes. But, in some cases it is less than 7 degrees; while in others it is more than 20 degrees. However, be the reason of the system what it may, there is no doubt that it was extensively in use in ancient times. And, that either it, or the very similar system of the *Brahma-Siddhânta*, explained below, was still in use, at least on important occasions, up to A.D. 862, is proved by the Dêôgaḍh inscription of Bhôjadêva of Kanauj; the results for which, calculated by me, have been exhibited by Mr. Fleet at page 23 below.

Another system of unequal spaces is given in the *Brahma-Siddhânta*,[8] chapter xiv. verses

[7] Krittikâ, which is now the fifth, was, in the sixth century A.D., the third in the order of the *nakshatras* if reckoned from the vernal equinox.

[8] By this name, is to be understood, throughout this paper, the *Siddhânta* by Brahmagupta.

45 to 53. In its leading feature, it is the same with Garga's system; but it differs a little from Garga's, in introducing Abhijit, in addition to the twenty-seven *nakshatras*. The moon's daily mean motion,—13 degrees, 10 minutes, 35 seconds,—is taken as the average space of a *nakshatra*. And, as the total of the spaces thus allotted to the usual twenty-seven *nakshatras*, on a similar arrangement of unequal spaces, amounts to only 355 degrees, 45 minutes, 45 seconds, the remainder,—4 degrees, 14 minutes, 15 seconds,—is allotted to Abhijit, as an addititional *nakshatra*, placed between Uttarâ-Ashâḍhâ and Śravaṇa. This system, which I would name the **Brahma-Siddhânta system of unequal spaces,** is best explained by Bhâskarâchârya,[9] in his *Siddhânta-Śirômaṇi*, Part iii. chapter 2 (Grahagaṇitaspashṭâdhikâra), verses 71 to 74. His text, and his own commentary on it, are as follows :—

Sthûlaṁ kṛitaṁ bh-ânayanaṁ yad êtaj
  jyôtirvidâṁ saṁvyavahâra-hêtôḥ ॥ 71
Sûkshmaṁ pravakshyê=tha muni-praṇîtaṁ
  vivâha-yâtr-âdi-phala-prasiddhyai ।
adhyardha-bhôgâni shaḍ atra taj-jñâḥ
  prôchur Viśâkh-Âditibha-dhruvâṇi ॥ 72
Shaḍ ardha-bhôgâni cha Bhôgi-Rudra-
  Vât-Ântak-Èndr-âdhipa-Vâruṇâni ।
śêshâṇy=ataḥ pañchadaś=aika-bhôgâny=
  uktô bha-bhôgaḥ śaśi-madhya-bhuktiḥ ॥ 73
Sarv-arksha-bhôg-ônita-chakra-liptâ
  Vaiśv-âgrataḥ syâd Abhijid-bha-bhôgaḥ ॥ 74

Commentary. — Iha yan nakshatr-ânayanaṁ kṛitaṁ tat sthûlaṁ lôka-vyavahâr-ârtha-mâtraṁ kṛitaṁ ॥ Atha Puliśa-Vasishṭha-Garg-âdibhir yad vivâha-yâtr-âdau samyak-phala-siddhy-arthaṁ kathitaṁ tat sûkshmam idânîṁ pravakshyê ॥ Tatra shaḍ adhyardha-bhôgâni । Viśâkhâ Punarvasu Rôhiṇy=Uttarâ-trayaṁ । atha shaḍ ardha-bhôgâni । Âślêsh=Ârdrâ Svâtî Bharaṇî Jyêshṭhâ Śatabhishak । êbhyaḥ śêshâṇi pañchadaś=aika-bhôgâni ॥ Bhôga-pramâṇaṁ tu śaśi-madhya-bhuktiḥ 790 35 । adhyardha-bhôgaḥ 1185 52½ । ardha-bhôgaḥ 395 17½ ॥ Sarv-arksha-bhôgair ûnitânâṁ chakra-kalânâṁ yach chhêshaṁ sô=Bhijid-bhôgaḥ 254 15 ॥

Translation.—"This bringing out of *nakshatras* (*i.e.* the method of finding *nakshatras*, with their *ghaṭîs* and *palas*) which has been made (*in the preceding verses*), (*is*) clumsy, (*and is only*) for the practical purposes of astrologers. Now I will explain the accurate (*method*) taught by [Puliśa, Vasishṭha, Garga, and other] sages, for the purpose of securing [good] results in the case of a marriage, a journey, &c. On this point, those who are versed in that (*branch of the science*) say, that six (*nakshatras*) have (*each*) a space which is one-and-a-half (*times of the average space*); (*viz.*) Viśâkhâ, Aditibha (Punarvasu), and the *dhruvas* (Rôhiṇî, Uttarâ-Phalgunî, Uttarâ-Ashâḍhâ, and Uttarâ-Bhâdrapadâ). And six have a half space (*each*); (*viz.*) those the lords of which are Bhôgin, Rudra, Vâta, Antaka, and Indra, and Vâruṇa [Âślêshâ, Ârdrâ, Svâtî, Bharaṇî, Jyêshṭhâ, and Śatabhishaj (Śatatârakâ)]. The remaining fifteen (*nakshatras*) have one space (*each*). The (*average*) space of a *nakshatra* is declared to be the (*daily*) mean motion of the moon [790′ 35″(=13° 10′ 35″)]. [A one-and-a-half space (*is*) 1185′ 52½″ (=19° 45′ 52½″) A half space (*is*) 395′ 17½″ (=6° 35′ 17½″)]. The space of the *nakshatra* Abhijit (*which comes*) next after Vaiśva (Uttarâ-Ashâḍhâ) is [the remainder, 254′ 15″ (=4° 14′ 15″), of] the minutes of the whole circle, diminished by the spaces of all the (*other*) *nakshatras*."

The longitudes of the ending points of all the *nakshatras* according to this system, are given in the last column of Table II. on the lower part of page 3 above. And, as before, the entries of ½ and 1½ in the previous sub-column, mark the spaces which differ from the average space.

Now, the **additional nakshatra Abhijit,** introduced in this system, is not taken into account among the *nakshatras* from which the names of the months are derived.[10] The question, therefore, arises,—what name is to be given to the *saṁvatsara*, when Jupiter rises in Abhijit? It can be solved thus. Abhijit is considered to be composed of the last quarter of Uttarâ-Ashâḍhâ, and the first fifteenth part of Śravaṇa. This is stated in the following verse of Vasishṭha, as quoted in the commentary, called *Pîyûshadhârâ*, on the *Muhûrta-Chintâmaṇi* ;—Abhijid-bha-bhôgam êtad Viśvêdêv-

[9] The system explained by Bhâskarâchârya, now given, is just the same as that in the *Brahma-Siddhânta*. It seems unnecessary, therefore, to give the verses from the *Brahma-Siddhânta* itself.

[10] See the verse *varshâṇi Kârttik-âdîni*, &c., at page 2 above.

ântya-pâdam akhilaṁ tat ‖ âdya-chatasrô nâḍyô Haribhasya,—" this (*is*) the longitude of Abhijit; the whole last quarter of Viśvêdêva (Uttarâ-Ashâḍhâ), (*and*) the first four *ghaṭîs* (*i.e.* the fifteenth part) of Haribha (Sravaṇa)." And other later authorities give the same rule. A quarter of a *nakshatra* is 3 degrees, 20 minutes; and a fifteenth part is 53 minutes, 20 seconds; and the sum of the two amounts to 4 degrees, 13 minutes, 20 seconds. In other words, Abhijit consists of nineteen parts; of which the first fifteen come from, and properly belong to, Uttarâ-Ashâḍhâ; and the last four come from, and properly belong to, Śravaṇa. And the name of the *saṁvatsara* is to be determined as Àshâḍha or Śràvaṇa, according to the particular part of Abhijit in which Jupiter rises.

As a **practical illustration** of the working of the rules, I give, in Table III., immediately below, a list, in which the dates of the heliacal risings of Jupiter are shewn for twenty-four years, from Śaka-Saṁvat 1780 to 1803 inclusive; with Jupiter's apparent longitudes at the time, and his *nakshatras* determined from those longitudes. The dates of the risings of Jupiter are taken from ordinary *Pañchâṅgs* in my possession, printed in different Presses at various places. The lunar months in which the risings took place, are all given by the *Amânta* southern reckoning. The longitude of Jupiter at each rising, is calculated from his longitude, given in the *Pañchâṅgs*, at some stated interval; for instance, of seven or fifteen days. In naming the *nakshatras*, the Brahma-Siddhânta system of unequal spaces, in the last column of Table II. on the lower part of page 3 above, is the one that has been resorted to. In the last column, the months, that is the names of the *saṁvatsaras* which then began, are given. It will be seen, that Mârgaśirsha is omitted in each of these two cycles. Other *saṁvatsaras* also may be omitted, in the same way, according to the circumstances of the particular cycle.

TABLE III.

Details of two Twelve-year Cycles of Jupiter.

Śaka-Saṁvat. expired.	English Date.	Longitude of Jupiter (Deg. Min.)	Nakshatra.	Month and Name of the Saṁvatsara
1780 Adhika-Jyêshṭha śukla 10...	7th June, 1858 ...	41° 47′	Rôhiṇî	Kârttika
1781 Âshâḍha śukla 14...	13th July, 1859 ...	77 2	Punarvasu	Pausha.
1782 Śrâvaṇa kṛishṇa 13	15th August, 1860 ...	110 20	Âśleshâ	Mâgha.
1783 Bhâdrapada śukla 13	16th September, 1861	141 38	Uttarâ-Phalguṇî ..	Phâlguna
1784 Âśvina kṛishṇa 9	17th October, 1862...	171 55	Chitrâ	Chaitra
1785 Kârttika śukla 6	16th November, 1863	201 32	Viśâkhâ	Vaiśâkha.
1786 Mârgaśirsha kṛishṇa 3 ...	16th December, 1864	232 3	Mûla	Jyêshṭha
1787 Mâgha śukla 2	18th January, 1866...	263 48	Uttarâ-Ashâḍhâ ...	Âshâḍha
1788 Mâgha kṛishṇa 4	22nd February, 1867	298 0	Dhanishṭhâ	Śrâvaṇa
1790 Chaitra śukla 5	29th March, 1868 ...	334 3	Uttarâ-Bhâdrapadâ..	Bhâdrapada
1791 Adhika-Vaiśâkha kṛishṇa 10	6th May, 1869	10 27	Aśvinî	Âśvina
1792 Jyêshṭha śukla 14...	12th June, 1870 ...	46 39	Rôhiṇî	Kârttika.
1793 Śrâvaṇa śukla 1	18th July, 1871 ...	81 47	Punarvasu	Pausha.
1794 Śrâvaṇa kṛishṇa 1	19th August, 1872 ...	114 45	Maghâ	Mâgha.
1795 Bhâdrapada kṛishṇa 14 ...	20th September, 1873	145 53	Uttarâ-Phalguṇî ...	Phâlguna.
1796 Âśvina śukla 11	21st October, 1874 ..	175 52	Chitrâ	Chaitra.
1797 Kârttika kṛishṇa 8	20th November, 1875	205 36	Viśâkhâ	Vaiśâkha
1798 Pausha śukla 1	16th December, 1876	235 21	Mûla	Jyêshṭha
1799 Pausha śukla 15	18th January, 1878...	267 22	Uttarâ-Ashâḍhâ ...	Âshâḍha.
1800 Phâlguna śukla 6	27th February, 1879.	302 46	Dhanishṭhâ	Śrâvaṇa
1801 Phâlguna kṛishṇa 10	4th April, 1880... ...	339 0	Uttarâ-Bhâdrapadâ .	Bhâdrapada
1803 Vaiśâkha śukla 12...	11th May, 1881 ...	15 30	Bharaṇî	Âśvina

From this Table III. it will be seen that from one rising of Jupiter to another, the motion of the planet amounts to from 30 to 36 degrees. By the systems of unequal spaces, some months, and the *saṁvatsaras* which are named from them, have the average space of one and a half *nakshatras*; that is, about 20 degrees only; they are Mârgaśîrsha, Mâgha, Chaitra, and Jyêshṭha; and these are the **saṁvatsaras that are most apt to be omitted.** For example, in Śaka-Saṁvat 1780 expired, when Jupiter rose, he was in Rôhiṇî. The following rising took place in Punarvasu; that is, from the first rising, he passed entirely through Mṛiga and Ârdrâ, before the next rising occurred. And, therefore, Mârgaśîrsha was omitted. Again, by these two systems, Śrâvaṇa contains the average space of two *nakshatras*; that is, about 26 degrees, 40 minutes; and, therefore, it also is liable to be omitted. Kârttika, Pausha, Vaiśâkha, Âshâḍha, and Âśvini contain the average space of two and a half *nakshatras* each; that is, about 33 degrees; and will but rarely be omitted. And Phâlguna and Bhâdrapada, containing not less than 40 degrees each, will never be omitted. So also, by the system of equal spaces, the nine months that contain two *nakshatras* each (excluding Abhijit), are sometimes likely to be omitted. But the remaining three, *viz.* Phâlguna, Bhâdrapada, and Âśvina, containing three *nakshatras* each, will never be omitted

On the other hand, sometimes it is possible that a **saṁvatsara may be repeated.** By either system of unequal spaces, this may happen in respect of Kârttika, Pausha, Phâlguna, Vaiśâkha, Âshâḍha, Bhâdrapada, and Âśvina; but, by the system of equal spaces, only in respect of Phâlguna, Bhâdrapada, and Âśvina. And, whenever a *saṁvatsara* is repeated, then two *saṁvatsaras* will be omitted in the same cycle, one, under ordinary circumstances; and one, on account of the repetition.

(*To be continued.*)

CHAMBA COPPER-PLATE INSCRIPTION OF SOMAVARMADEVA AND ASATADEVA.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

I edit this inscription from two rubbings, supplied to me by Mr. Fleet, to whom they were made over by General Sir A. Cunningham. According to the information furnished to me, the original inscription was discovered in the State of **Chambâ, or Champâ,**[1] in the Pañjâb, but I am unable to ascertain where it is at present. The two rubbings just suffice for editing, but they are, I regret to say, useless for photographing.

The **plate** is a single one, inscribed on one side only, measuring about 17½" broad by 12" high. To judge from the rubbing, a small piece of the upper proper left corner of the plate is broken away, causing the loss of about five *aksharas* at the end of line 30, and of about three *aksharas* at the beginning of line 31; otherwise the plate appears to be well preserved; and, with the exception of a few *aksharas* which are indistinct in the impressions, the inscription is legible with certainty. There is no indication in the rubbing that the plate contains a hole for a **ring** with a **seal** on it.

The **inscription** consists of 32 lines. Of these, lines 1-28 are full lines, covering the whole breadth of the plate. Line 29 is written regularly below line 28, but fills only about two-thirds of the breadth of the plate, beginning below the word *likhitam* of line 28. Line 30 is written in continuation of line 29 up the proper left margin of the plate, line 31 on the top-margin above line 1, and the short line 32 down the rather broad right margin, which also contains, in somewhat large letters, the names of the two sovereigns by whom the grants recorded in the plate were made.

The average **size** of the letters is between $\frac{3}{16}$" and ¼".—The **characters** belong to the northern class of alphabets and bear (with the exception perhaps of the signs for *ja, bha, ra, va*, and the initial *ê*) in every respect a most remarkable resemblance to the characters of the Śârada alphabet, as written, *e.g.*, in the Bhûrjapattra MS. of the *Kâśikâ-Vṛitti*, which was brought by Dr. Bühler from Kaśmîr, and is now in the Deccan College.[2] The sign for the *Jihvâ-*

[1] See *Archæol Survey of India*, Vol. XIV. p. 109

[2] So far as I can judge, it would be impossible to determine the age of the inscription, even approximately, from the characters in which it is written

mûlîya, which occurs in °*dêvaḥ kuśalî*, line 13, and *yaḥ ka-*, line 24, and that for the *Upadhmânîya*, which occurs in *-viśvaḥ Purârih*, line 2, *-prakṛitiḥ prativâsi-*, line 15, and *dharmaḥ pâlanât*, line 25, show exactly the same forms as in the Śârada alphabet. The **numerals** **1**, 2, and 5 are denoted by the ordinary numerical figures resembling closely the figures used in Śârada MSS.; but the numeral for 4 is throughout, both when used by itself and as the latter portion of 14, denoted by a **symbol** resembling the symbol for 4 employed in Jaina palm-leaf MSS.—The **language** is Sanskṛit, and, excepting two verses in honour of the gods Brahman, Vishṇu, Śiva, his consort Bhavânî, and Gaṇêśa, at the beginning, one verse giving the names of the deities to whom the greater part of the grant was made, in lines 23 and 24, and four of the customary benedictive and imprecatory verses, in lines 24-27, the inscription is in prose. From a grammatical point of view I may draw attention to the employment of the Instrumental case *Śukravârêṇa*, in line 27, instead of the Locative *Śukravârê*, and to the position of the numeral in *bhûmâshaka-chaturṇâm*, line 29, and in *dêvadvayôḥ*, line 30, which is not uncommon in Sanskṛit inscriptions of the middle-ages.[3] The Sanskṛit of the genealogical part of the inscription, up to line 13, is unobjectionable.—In respect of **orthography** I would notice the occasional employment of the *Jihvâmûlîya* and *Upadhmânîya* in the passages mentioned above; the use of the dental for the palatal sibilant in *Kulûtêsvara* and *sâkhinaḥ*, line 5, *sici*, line 8, *asêsha-sâstrârtha*, line 11, *paramêsvara*, line 12, and *daṇḍapâsika*, line 15; the employment of the guttural nasal instead of the *anusvâra* in *vaṅśê*, line 24; and the fact that *ba* is everywhere denoted by the sign for *va*.

The **inscription** may be divided into two parts, the first of which extends from line 1 up to the words *iti śubham* in line 28, while the second comprises the short remaining portion up to the end.

The first portion is dated, in line 27, on Śukravâra or Friday, the second lunar day of the light half of Vaiśâkha, in the first year in the augmenting auspicious reign of victory of the illustrious **Âsaṭadêva**; and it records that the devout worshipper of Brahman, the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*, the illustrious **Sômavarmadêva** (evidently the immediate predecessor of Âsaṭadêva), from his residence at the glorious **Chaṇpakâ**, made grants of land, etc., to certain temples of the gods Vishṇu and Śiva, as will be shown below. The *dûta* or 'messenger' for these grants was the *mahâkshapaṭalika* or 'great keeper of records,' the illustrious Kâhuka (line 28); and this portion of the inscription as well as the concluding one was written by the *karaṇakâyasthas* or 'writers of legal documents' Śiva and Pamanna (lines 28 and 32).

In lines **3-13**, **Sômavarmadêva**, the grantor, is described as meditating on the feet of the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*, the illustrious **Sâlavâhanadêva**, and as the son of the *paramabhaṭṭârikâ*, the *mahârâjñî*, the illustrious **Raṛdhâdêvî**; and it is recorded of him that he was born in the spotless family of the illustrious **Sâhilladêva**, the great jewel to adorn the **Paushaṇa** *vaṁśa* or solar race, who had acquired for himself such names as **Sâhasâṅka**, **Niśśaṅkamalla**, and **Maṭamaṭasiṁgha**; "who was a new cloud to extinguish in a moment the mighty blazing fire of the **Kîra** forces, fanned, as by the wind, by the **Durgara** lord assisted by the **Saumaṭika** . . .; whose alliance was humbly sought by the ruler of **Trigarta**, subdued by force; who was asked the favour of bestowing royalty, in return for services rendered or to be rendered, by his kinsman the lord of **Kulûta**, anxious to render him homage; who by the weight of battle had broken, like a wide-spreading tree, the large force of the **Turushkas**, on whom wounds had been inflicted;" and who, by destroying in **Kurukshêtra** the array of the elephants of his enemies, had acquired for himself the name of **Karivarsha**.

I may state here at once that the mention of **Sâlavâhana**, the predecessor of Sômavarmadêva, and of **Âsaṭadêva**, his successor, enables us to fix with certainty the approximate date of the grant. According to the *Râjataraṅgiṇî*, vii. 218, the Kaśmîrî king **Ananta** uprooted the king **Sâla** of Champâ; and according to

[3] Compare *e. g.* *hala-dasa*, [illegible], and *sataka* in the plate of Madanavarmadeva of Vikrama-Samvat 1190, *ante*, page 207. Similarly, in the Basahi plate of Gôvindachandra of [Vikrama]-Samvat 1161, *ante*, Vol. XIV, page 103, line 8, we must clearly alter *saha-saike* to *sahasraiḥ*.

vii. 589 of the same work, **Âsaṭa**, the Châmpêya, was one of a number of tributary chiefs who presented themselves at the court of the king **Kalaśa** of Kaśmîr. As the first-mentioned event is placed by Sir A. Cunningham[4] between A. D. 1028 and 1031, and the second[5] in A.D. 1087, and as Sâla and Âsaṭa are clearly the two princes Sâlavâhana and Âsaṭa of our grant, the grant must have been made between those two dates, or about the middle of the 11th century.—The traditional list of the Chambâ Râjas given in *Archæol. Survey of India*, Vol. XIV. pp. 114 and 115, identifies Sâla with Sòila or Sahila, the Sâhilladêva who in our grant is described rather as the founder of the family; and it has between Sâla and Âsaṭa no less than five princes, none of whom is called Sômavarmadêva.—Some of the peoples mentioned in the grant in connection with Sâhilladêva can be readily identified. **Trigarta**, according to Sir A. Cunningham,[6] is the name of the country between Kâṅgṛâ and Jâlandhar, to the south of Chambâ; and **Kulûta**, the district of **Kuḷḷû**,[7] to the south-east of Chambâ. The **Kîras** have by some been identified with the Kaśmîrîs, but in the *Bṛihatsaṁhitâ*, xiv. 29 they are separately enumerated, as a people inhabiting the north-east, together with the Kaśmîras.[8] About the **Durgara** lord and the **Saumaṭika**, with whom the Kîras would appear to have been allied, I have not been able to collect any information, but it does not seem impossible that Durgara may be identical with **Dôgrâ**, which by Sir A. Cunningham is given as a name of the country including "Jammu and the other petty States between the Jehlam and the Râvi."[9] The allusion to Sâhilladêva's victory over the **Turushkas** or Muhammadans, probably has reference to the repulse of one of Sultân Maḥmûd's invasions at the beginning of the 11th century.[10]

Sômavarmadêva, being about to make a grant, in lines 13-15 of the inscription addresses himself in the usual manner to the various officials of his dominions and to the inhabitants of the districts concerned. The number of officials mentioned is unusually large, and reminds one of the lists of officials given in the Âmgâchhî and Bhâgalpur plates.[11] The individual functions of every official named are by no means clear, and I would point out that I have not found the office of *cîrayâtrika*, line 14, mentioned in any other grant which I have studied.

The objects granted are in lines 16-21 stated to be 15 *bhûmi* or *bhû* of land, and a yearly gift of one *khârî* of grain from the granary at **Bhadravarma**, the said 15 *bhûmi* of land being made up as follows:—

1. In the **Pânthila** *maṇḍala*,—
   (*a*) 4 *bhûmi* belonging to **Kulôṭi**, described as being in the enjoyment of the *mahârâjñî* Rarḍhâ (the mother of the grantor);
   (*b*) in **Muṅgala**, 2 *bhûmi*, situated in Sûpakâra-surambhaṭa;
   (*c*) in **Vâṭâ**, 2 *bhûmi*, situated in Chhônnêraka-gôshṭhika.
2. In the **Tâvasaka** *maṇḍala*,—
   (*a*) in **Bhadravarma**, 1 *bhû*, situated in bhadrâvakâśîya-Vijjaula;
   (*b*) in **Sarâhula**, 1 *bhûmi*, situated in Bhaṭṭavasanta;
   (*c*) in **Ḍhâlyaka**, 2 *bhûmi* in Lartuka, belonging to Dênnasuta; and 2 *bhû* in Jauḍhaka, belonging to Râmajjêyasuta;
3. In the **Pârakamaṭa** *maṇḍala*,—
   in **Maṅgala**, in Ḍhaullêkâ, 2 *bhûmâshaka* belonging to Lutthukasuta, and 2 *bhûmâshaka* belonging to Hurtâkasuta, these 4 *bhûmâshaka* being equal to 1 *bhû*.

Or, in figures, 4 *bhû* in **Kulôṭi**, 2 *bhû* in **Muṅgala**, 2 *bhû* in **Vâṭâ**, 1 *bhû* in **Bhadravarma**, 1 *bhû* in **Sarâhula**, 4 *bhû* in **Ḍhâlyaka**, and 1 *bhû* in **Maṅgala**;—total 15 *bhû*.

There are several things in the passage of which the above is an abstract, which I am unable to explain satisfactorily; others, about

[4] *Ancient Geography of India*, Vol. I. page 141. The doubts expressed by Lassen, *Indische Alterthumskunde*, Vol. III. page 1051, regarding the existence of a king named Sâla, are by our grant shown to be groundless.

[5] *Archæol. Survey of India*, Vol. XIV. p. 106

[6] *Ancient Geography of India*, Vol. I. page 136.

[7] *ib.* page 142.

[8] See Hall, in *Journal Am. Or. Soc.*, Vol. VI. page 528.

[9] *Ancient Geography of India*, Vol. I. page 130.

[10] In the genealogical part of the grant I am unable fully to explain the epithet applied to Sâhilladêva in line 9, according to which 'he had his extraordinary expanded sparkling might proclaimed by the venerable holy god Śûdrakasvâmin.' I suspect that Śûdrakasvâmin is a local name of the god Vishṇu, in honour of whom Sâhilladêva may have founded a temple.

[11] *ante*, Vol. XIV. page 167, and Vol. XV. page 306.

which I am doubtful. The term *bhûmi* or *bhû* I take to be a measure of superficial area, and from line 19 it is clear that the *bhûmi* or *bhû* was sub-divided into four *mâshaka*. But I do not see the exact force of the term *sît* prefixed to *bhûmi* and *bhû* in lines 16, 17, and 18; and, similarly, I cannot explain the term *ashṭapra-hârika* which occurs twice in line 18, and again below in line 31; nor the phrase *sakhilaṁ pakhilaṁ* in line 29.—As regards the territorial names, it appears that the realm of Sômavar-madêva was divided into *maṇḍalas*, and that the names Kulôṭi, Muṅgala, Vâṭâ, Bhadra-varma, Sarâhula, Ḍhalyaka, and Maṅgala, denote certain sub-divisions of the three *maṇḍalas* Pânthila, Tâvasaka, and Pârakamata mention-ed. The remaining terms Supakâra-suram-bhata, Chhônnêraka-gôshthika, etc., I would regard, judging merely from the wording of the text, as names of villages. But on the very imperfect maps at my disposal I have not been able to identify any of the places or districts enumerated, with the excep-tion of Bhadravarma, which would seem to be the **Bhadrwâr** of the maps, to the north-west of Chambâ.—Finally, as regards this portion of the inscription, I would draw attention to the fact that the owners of the land concerned, where they are mentioned at all, are not called by their own proper names, but described as the sons of their respective fathers—Dênna-suta, 'the son of Dênna,' Râmajjêya-suta 'the son of Râmajjêya,' etc. The same practice is observed in the concluding portion of the inscription, lines 29 and 31.

Of the 15 *bhûmi* of land described, two *bhûmâshaka* or half a *bhûmi*, according to lines 21-24, were granted by the king, as an *agrahâra*, to a temple of Vishṇu erected in honour of (?) the *mahârâjaputra*, the illustrious **Âsaṭa** (?): and the remaining land, as well as the yearly contribution of grain, was given, as an *agrahâra*, jointly to the gods Vishṇu and Śiva, who must have been worshipped in one temple, the former in honour of the illustrious **Lak-shmaṇavarman,** and the latter, an image of whom had been set up by the queen Rardhâ, in honour of the illustrious **Sâlâkaravarman.** The first line of the verse (line 23) in which the two gods are mentioned, is not quite clear to me; as regards the remain-ing portion of the verse, I take Sâlâkara-varman to be another name of Sâlavâhana, the husband of Rardhâ and father of Sôma-varmadêva. The temple to which this chief part of the grant was made, I would suggest to be the temple of **Lakshmi-Nârâyaṇa,** "referred to the time of Râja Sâla Varmma," which is mentioned in *Archæol. Survey of India*, Vol. XIV., pages 113 and 114, and which, to judge from the legend mentioned by Sir A. Cunningham, appears to have been devoted to the worship of Vishṇu and Śiva.

The second portion of the inscription, from *Atra punar api likhyatê* in line 28 up to the end, is dated ten years later than the preceding portion, *i.e.* in the 11th year of the reign of **Âsaṭadêva,** on the 12th of the light half (?) of Bhâdrapada; and it records various minor alterations of the previously recorded grant, the main import of which appears to be that, instead of the four *bhûmâshaka* in **Maṅgala,** in the **Pârakamaṭa** *maṇḍala* mentioned before, four other *bhûmâshaka* were given to the tem-ple of the two gods Vishṇu and Śiva, and that one *bhû* of land in **Ghalahaṇa,** in the **Pânthila** *maṇḍala*, was given to the before-mentioned temple of Vishṇu (?).

The whole grant bears the subscription: "the own hand of the illustrious **Sômavar-madêva;** the own hand of the illustrious **Âsaṭadêva.**"

I may add here that, together with the above inscription, Mr. Fleet has sent to me two impressions of **another Chambâ copper-plate** inscription, also received from Sir A. Cunning-ham, which will be referred to in notes 31 and 32 below. This inscription also is on a single plate, measuring 10¾" by 7¼". It consists of 16 full lines and one short line, engraved on the proper right margin, and containing the subscription of the grantor. Its characters are virtually the same as those of the grant here edited. It is throughout in prose, and it records, in Sanskṛit which is not always cor-rect, that the devout worshipper of Brahman, the *mahârâja*, the illustrious **Bhôṭavarmadêva,** who meditated on the feet of the *parama-bhaṭṭâraka*, the *mahârâjâdhirâja*, the illustrious **Mânikyavarman,** and who was the son of the *paramabhaṭṭârikâ*, the *mahârâjñî*, the illustri-ous **Ju[rû?]radêvî,** from his residence at **Chanpakâ,** granted certain lands belonging to

the village Jumgurâra, in **Kôshṭagrâhara,** in the **Chaturâha** *maṇḍala*, to an individual of the Kâśyapa *gôtra*. So far as I can make out, this grant contains **no date** of any kind.

The princes Maṇikyavarman and Bhôṭavarmadêva are evidently No. 44 and No. 45 of the genealogical list of the Chamba Râjas, placed by Sir A. Cunningham (*Archæol. Survey of India*, Vol. XIV. page 115) in A.D. 1400 and 1425.

TEXT.[12]

1 Ôṁ[13] namaś=Śivâya । (॥) Jayati[14] bhuvana-kâraṇaṁ Svayambhûr=jayati Purandara-nandanô Murâriḥ [।*] jayati Girisutâ-niruddha-dêhô durita-bhay-âpaharô Hara-

2 ś=cha dêvaḥ ॥ Jayati[15] janam=anishṭâd=uddharantî Bhavânî jayati nija-vibhûti-vyâpta-viśvaḥ=Purâriḥ [।*] jayati cha Gajavaktras=sô=tra yasya prasâdâd=uparamati

3 samastô vighna-varg-ôpasargaḥ ॥ Śrî-**Chaṇpakâ**[16]-vâsakât=parama-vra(bra)hmaṇyô lalâṭa-tata-ghaṭita-vikaṭa-bhrûkuṭi-prakaṭa-kuṭṭita-kaṭaka-[S]**aumaṭika**-kṛita-sânâthya-**Durga-**

4 **rêśvara**-samîra-sandhukshita-**Kîra**-va(ba)la-va(ba)lavad-dav-âśuśukshaṇi-kshaṇa-kshapaṇa-[na]va-jaladharasya ।[17] daṇḍ-ôpanata-**Trigartâdhip**-ânunaya-prârthita-sandhânasya । sêvâ-vidhi-vyagra-

5 svakulya-**Kulûtêsva(śva)ra**-karma-vyatihâra-prârthyamâna-râjyâtpa(rpa)ṇa-prasâdasya । samara-bhara-bhagn-ârugṇârushka-**Turushka**-vipula-va(ba)la-viśâla-sâ(śâ)khina[ḥ] । **Kurukshêtrê** Râh-ûparâ-

6 ga-samaya-samarthita-mada-gandha-luvdha(bdha)-madhukara-kul-âkula-kapôla-phalaka-kari-ghaṭâ-dâra-prîti-prasanna-mânasa-bhagavad-Bhâskar-âbhinandita-nij-ânvaya-prasûti-

7 paramparâ-sâra-**Karivarsh**-âbhidhân-âbhyudayasya tatkâla-milita-nikhila-mahîpâla-mukha-maśî-kûrchikâ-kîrti-surabhita-sapta-bhuvan-âbhôgasya niratiśa-

8 ya-śaury-audâry-âgâdhagâmbhîrya-maryâdâ-dayâ-dâkshiṇya-vailakshaṇya-jarjarita-Jâmadagnya-Si(Śi)vi-Karṇa-Yudhishṭhir-âdi-pravara-prasiddhêḥ darśana-saphalita-lô-

9 ka-lôchana-manôrama-mû[rtêḥ][18] bhagavach-chhrî-Śûdrakasvâmi-dêva-prakhyâpya[mâ][19]n-ânanyasâmânya-sphâra-sphurad-uru-mahimnaḥ samara-sahasra-saṁvidhâna-kôp-ârjita-

10 **Sâhasâṅka-Niśśaṅkamalla-Maṭamaṭasiṁgh**-âdy-âpara-paryâyasya । **Paushaṇa**-vê(vaṁ)-[20]śa-bhûshaṇa-mahâmaṇêḥ śrîmat-**Sâhilladêvasya** । nirmalê kulê tila-

11 ka-bhûtaḥ niravadya-vidyâ-vinôda-rasa-rasika[ḥ] । asê(śê)sha-sâ(śâ)strârtha-parimal-âdhivâsita-mânasaḥ vivêk-aika-sarô-râjahaṁsaḥ agaṇita-vimala-guṇa-gaṇ-â[la][21]ṅkṛi-

12 ta-mûrtiḥ tribhuvana-bhavana-vi[ch*]chhurita-kîrtiḥ paramabhaṭṭâraka-mahârâjâdhirâja-paramêsva(śva)ra-śrîmat-**Sâlavâhanadêva**-pâdânudhyâtaḥ paramabhaṭṭârikâ-mahârâjñî-śrî-**Rarḍhâ-**

13 **dêvî**-kukshi-kshîranîranidhi-sudhâdîdhitiḥ paramabhaṭṭâraka-mahârâjâdhirâja-paramêśvara-śrîmat-**Sômavarmadêvaḥ**=kuśalî । sarvân=êva niyôgasthân râja-râjânaka-râj[â*]-

14 mâtya-râjâ(ja)putra-parikara-sanniyuktaka-viniyuktaka-dûta-gamâgamika-bhitvaramânya-[22]khaśa-kulika-śaulkika-gaulmika-khaḍgaraksha-[23]tarapati-[24]vîrayâtrika-chaurô-

---

[12] From the rubbing.

[13] Expressed by a symbol.

[14] Metre, Pushpitâgrâ.

[15] Metre, Mâlinî.

[16] *Chaṁpaka*, instead of *champaka*, according to Professor Pischel, is the ordinary spelling of Śârada MSS. See Solf, *Kaśmîr Recension der Pañchâśikâ*, page 29.

[17] Here and in other places below, which it is unnecessary to point out separately, the sign of punctuation is superfluous.

[18] At first sight this *akshara* looks like *rti*, and this was no doubt originally engraved; but a careful examination shows that *rti* has been altered to *rtêḥ*.

[19] This *akshara*, which originally was omitted, is written below the line.

[20] The *akshara vê* appears to have been altered already in the original, but I cannot recognize in the rubbing what is written above *vê*. Below, line 24, *vaṁśa* is written *vaṁsa*.

[21] This *akshara*, which originally was omitted, is written above the line.

[22] I do not venture to alter this or any of the other terms, which are perfectly plain in the rubbing. The Âmgâchhî and Bhâgalpur plates, *ante*, Vol. XIV. p. 167, line 30, and Vol. XV. p. 306, line 35, have *gamâgamika | abhitvaramâṇa |*.

[23] The Âmgâchhî plate has, line 29, *aṅgaraksha*, and the Bhâgalpur plate, line 34, *khaṇḍaraksha* instead.

[24] The two plates mentioned before have *tarika*, lines 30 and 36.

15 ddharaṇika-[dâ]ṇḍika-daṇḍa[p]âsi(śi)ka-vrâ(brâ)hmaṇa-[kshatriya]-[25]viṭ-chhûdr-âdi-[s]âshṭâdaśa-prakṛitîḥ=prativâsi-janapadâṁś=cha samâjñâpayaty=astu vas=saṁviditaṁ yathâ sva-śâsyamâna-sha(chchha ?)[26]trâ-

16 bhôgê **Pânthila**-maṇḍala-prativa(ba)ddha-mahârâjñî-śrî-**Rarḍhâ**-dêvyâ[27] bhuchya(jya)mâna-**Kulôṭî**-satka-bhûmayaś=chatasraḥ tathâ **Muṅgalê** Sûpakâra-surambhaṭa-sthitâ sît bhûmi-dvayaṁ । tathâ

17 **Vâṭâyâṁ** Chhônnêraka-gôshṭhika-sthitâ sît bhûmi-dvayaṁ tathâ **Tâvasaka**-maṇḍala-prativa(ba)ddha-**Bhadravarmê** bhadrâvakâśîya-Vijjaula-sthitâ sît bhûr=êkâ । tathâ **Sarâhulê**

18 Bhaṭṭavasanta-sthitâ sîd-bhûmir=êkâ tathâ **Ḍhâlyakê**=shṭaprahârika-Dênnasuta-satka-Lartukê bhûmî-dvayaṁ tath=âtr=aiva dvitîy-âshṭaprahârika-Râmajjêyasuta-satka-Jau[ḍha]kê bhû-dvayaṁ tathâ **Pâ[ra]**[28]-

19 **kamaṭa**-maṇḍala-prativa(ba)ddha-**Maṅgalê** Ḍhaullêkâyâṁ Lutthukasuta-satka-bhûmâshaka-dvayaṁ tathâ Hu[29][rtâ]kasuta-satka-bhûmâshaka-dvayam=ubhau saṁśu[ddha]-[30] bhûr=êk=âṅkataḥ **Kulôṭî** bhû 4 **Muṅgalê** bhû 2 **Vâṭâyâṁ**

20 bhû 2 **Bhadravarmê** bhû 1 **Sarâhulê** bhû 1 **Ḍhâlyakê** bhû 4 **Maṅgalê** bhû 1 êvaṁ bhû 15 êvaṁ pûrvaprasiddha-bhukti-pramâṇêna svasîmâ-tṛiṇa-gôyûthî-[31]gôchara-paryantaṁ sakhila[ṁ][32] pakhilaṁ sa-nirgama-pravêśaṁ

21 sa-vanaspaty-udakaṁ gṛiha-śâkavâṭikâ-vṛikshârâma-viśrâm-ôpêtaṁ tathâ **Bhadravarma**-kôshṭhâgârât=prativarshaṁ dhânya-khâry=êk=âṅkataḥ dhânya-khâ 1 atô madhyât=**Pârakamaṭa-Maṅgala**-mârgâl=Lutthukasu-

22 tîya-bhûmâshaka-dvayam=atr=aiva mahârâja-putra-[śrî-Â][33]**saṭasy**=ôddêśêna pratishṭhâpita-bhagavad-Vishṇavê agrahâratvê iti pratipâditam pânya[34] bhû 14 mâ 2 (?) dhânya-khâ 1 â-chandr-ârkam=anâ-

23 chchhêdyam=ahâryam=anupadravam agrahâratayâ tôya-chuluk-âpûra-pûrvakam ॥ Śrîmal-[35] **Lakshmaṇavarmaṇaś**=śubhavada-prâ[khyê] vibhur=yô Hariś=śrî-**Sâlâkara**-**varmaṇê** cha śiva-kṛid=vâṇ-ârchitô ya-

24 ś=Śivaḥ [।*] dêvy=âsmin=parabhakti-bhâvita-dhiyâ śrî-**Rarḍhayâ** sthâpitas=tâbhyâṁ dattam=idaṁ=mayâ nanu janais=sarvair=anujñâyatâm ॥ Tathâ cha Vyâsa-bhâshitam [॥*] Asmin=[36]vaṅśê(ṁśê) su-vistîrṇê yaḥ=ka-

25 śchin=nṛipatir=bhavêt [।*] tasy=âhaṁ hasta-lagnô=smi śâsanaṁ mâ vyatikramêḥ ॥ Pâlanât=paramô dharmaḥ=pâlanât=paramaṁ tapaḥ [।*] palanât=param-aiśvaryaṁ garîyas=têna pâlanaṁ ॥ Anyâyêna

26 hṛitâ bhûmir=anyâyêna tu hâritâ । harantô[37] hârayantaś=cha dahaty=â-saptamaṁ kulam ॥ Taḍâkânâ[ṁ][38] sahasrêṇa aśvamêdha-śatêna cha । gavâṁ kôṭi-pradânêna bhûmi-hartâ

27 na śuddh[y*] ati ॥ Pravardhamâna-kalyâṇa-vijaya-râjyê śrîmad-**Âsaṭadêvîyê** saṁvatsarê prathamê Vaiśâkha-sita-[dvi][39]tîyâyâm Śukravârêṇa paṭṭakam=idaṁ sampâdi-

---

[25] This word, which originally was omitted, is written below the line.

[26] I am almost certain that the original *akshara sha* has been struck out, and that *chchha* has been engraved below it. With *chhatrabhôga* 'the expanse of the royal umbrella,' we may compare such expressions as *chhatra-[illegible]*, *ante*, Vol. VIII. p. 214, l. 7, translated by 'in-[illegible]'

[27] This should properly be *-dêvî-bhujyamâna-*.

[28] Originally *Pira*. [29] Originally *Hu[illegible]*.

[30] Originally *saṁsuddhaṁ*.

[31] The ordinary spelling of the last portion of this word is *-yûti*, but this inscription and the unpublished [illegible] grant of Bhôṭavarmadêva have distinctly *-yûthî*.

[32] The Anusvâra is somewhat indistinct; but the unpublished grant mentioned in the last note has clearly *sakhilaṁ [illegible]*. I have not met with the expression anywhere else and am unable to explain it.

[33] I am very doubtful, especially about the second *akshara* in brackets. So far as I can judge from the rubbing the original reading would seem to be *śrîpâ*; but the second of these two *aksharas* has been altered, and the *î* of *śrî* also may have been struck out. It is not impossible that the right reading may be *śry-Âsaṭasya*.

[34] This word is plain in the rubbing, but I cannot explain it: of course, it is easy to say that it may be a mistake for *anya* or *anyê*. The following *bhû* 14 *mâ* 2 I take to mean '14 *bhûmi* and 2 *mâshaka*'; but the figure 2 is indistinct in the impressions.

[35] Metre, Śârdûlavikrîḍita.

[36] Metre, Śloka (Anushṭubh); and in the following three verses.

[37] Read *haranto hârayantaś-cha*.

[38] So this word is spelt *e.g.* also *ante*, Vol. XIII. p. 78, line 21.

[39] The *akshara* in brackets looks like *tri*, altered to *dvi*.

28 tam [||*] Dûtô=tra mahâkshapaṭalika-śrî-Kâbukaḥ || Likhitam=idaṁ karaṇa-kâyastha-Śiva-Pamannâbhyâm || Iti śubham [||*] Atra punar=api likhyatê [|*] Yathôpari-

29 likhita-**Pârakamaṭa-Maṅgalê** bhûmâshaka-dâ(cha)turṇâṁ parivartê tatr=aiva Savarmikasutânâṁ satka-bhûmîpra(sha)kâś=chatvâraḥ

30 aṅkataḥ bhûmâ 4 agrahâratvê vibhâgê dêva-dvayôḥ pa[ra ?]-saṁvat 11 Bhâdra-pada-[śubhr ?]ê 12 [sa ?] - - - - - [40]

31 - - - [41] varê dattaṁ **Pânthila**-maṇḍala-prativa(ba)ddha-**Ghalahaṇê** Mahêndraka-pô(pau)tra-Mantrika-suta-satka-bhûr=êk=âṅkatô bhû 1 ashṭaprah[â*]rika-sarva[— ?]-tr[ai ?]va [dê]va-gṛihê pratip[â*]dita | prâṅ(g)-lê(li)khita-kram[ê*]ṇa pâlanî-[yam |*]

32 [Li*]khitaṁ Siva-Pamannâbhyâm=êva | (||)
Śrîmat-**Sômavarmadêva**-svahastaḥ || Śrîmad-**Âsaṭadêva**-svahastaḥ [||*]

FOLKLORE IN SALSETTE,

BY GEO. FR. D'PENHA.

No. 2.—*The poor boy who went in search of Îśvara.*

There once lived an old woman with her only son, whose occupation was to take out other people's cattle to graze, for which he received a very meagre remuneration; and this was their only source of maintenance. Poverty stared them in the face. Very hard indeed was their lot; hard to such an extent that they had very often to be content with only one meal a day. Things continued in this state for some time till at last it became unbearable, and the boy determined to seek out Îsvara, and ask him why of all mankind he alone had to endure such misery.

Accordingly he one day told his mother of his intention and asked her to make him enough bread to serve him for several days. The old woman, as ignorant as himself, prepared some *bâjrî* cakes, and giving them to him, bid him a loving adieu, wishing him every success.

Taking the cakes and an axe, the boy started in search of Îśvara. He walked on and on till night overtook him, and he sat under a jack-fruit tree, and partaking of his coarse fare went to sleep. At dawn, when he was leaving the place, the tree detained him and asked him where he was going. The boy told the tree the object of his journey. Whereupon the tree said:—

"Well, if you are in search of Îśvara do me a favour. If you should happen to meet with him tell him it is now twice twelve years since I have stood here, but so far I have not borne a single fruit."

The boy promised to give the message; and the better to remember it he tied a knot on a rope which he had with him, and started on his errand.

He walked another whole day, and night coming on he partook of his *bâjrî* cakes and rested himself under a mango tree. In the morning he arose and as he was going away the tree asked him where he was going, and on being told it exclaimed:—

"Tell Îśvara for me that for twice twelve years I have been standing here, bent down with the burden of my fruit, but not one living creature will touch, much less eat, any of it."

The boy said he would do it, tied another knot on the rope, and pursued his journey. He walked with rapid strides for another whole day and by dusk entered a city and there passed the night after eating some of his cakes. At day-break he saw a big tank under construction. It was being built by the king of that place for the benefit of his subjects, but to his great grief it could not be completed, for no sooner was one side built and the other commenced than the first would break down, and by the time it was rebuilt the other would give way; and so had it continued for twenty-four years. The boy seeing the king very sad, asked him the reason and the king told him,

---

[40] Here about five *aksharas* are missing.

[41] Here two or three *aksharas* are missing.

and in turn asked where he was going. He told him everything, whereupon **the king said**:—

"Do take my message, too, to Îśvara. Tell him I have been **twice twelve years** building a tank for the good of my subjects, but it has not been completed. Ask him the reason why, and what I should do."

The boy said he was at His Majesty's service and would do everything the king told him. And he again started; but before he left he made **a third knot** on the rope lest he should forget.

For a fourth day our hero walked on and on till late in the evening, by which time he had reached a certain shore. Being very weary and hungry he ate what little remained of his *bájrí* cakes and slept soundly till break of day.

When he woke up the next day he saw at a little distance an enormously big *manghal-másá* (fish) stretched on the dry land. On approaching him he questioned the boy as to where he was going, and he told him that he was in search of Îśvara. Thereupon **the whale said**:—

"If you happen to meet with Îśvara, do not forget me. Tell him it is **twice twelve years** since I was thrown on this shore, and since then not a single tide has come within my reach to enable me to get into the sea again."

The boy made a promise to the whale to mention him to Îśvara, and made **a fourth knot** on the rope. He then rushed into the sea, little recking the roaring of the waves, when lo! a **passage opened out** for him and he was enabled to proceed on his way. He walked a long while and came to a house, at the entrance of which, on the sixth step, was seated an ascetic, in whom the boy did not recognize the object of his search, for he was **Îśvara himself**, who pitied the boy and had come to aid him. Îśvara questioned the boy as to who he was and what he wanted in that place. The boy said:—

"O holy saint, tell me, if you can, where I can find Îśvara."

"What do you want from Îśvara? Tell me all, and I will try and help you."

Upon this the boy related his story, and how he had journeyed for several days to seek Îśvara, and beg of him to better his condition!

Îśvara bade him go home and said he would now live in a better position. Hearing this the boy went down from the fifth to the fourth step, when Îśvara detained him and asked him if he had anything else to say. Just then the boy **remembered his promise** to the whale, and told Îśvara how for twice twelve years he had been lying on dry land and how he was longing for a tide to come and take him back to his mother, the ocean.

On this Îśvara told the boy to tell the whale that he had in his belly a box containing very **precious gems**, and that if he would throw up that box and give it to the first passer-by, the tide would come and carry him back into the sea.

The boy heard these words and went down to the third step when Îśvara again detained him and asked him if he had nothing else to say; whereupon he remembered the king who was building the tank, and said:—

"There is a certain king who says he has spent twice twelve years in constructing a tank for the benefit of his subjects; but to his sorrow as soon as one side is built and the other commenced, the first side breaks down, and by the time it is rebuilt the other side gives way, and so it has continued for twice twelve years. He wants to know what he should do to complete the tank."

Upon this Îśvara said:—"Tell the king that if he has the welfare of his subjects at heart, he he must risk **half his kingdom** by bestowing it on the first passer-by, and also **give him his daughter** in marriage, and then only will the tank be completed."

The boy then stepped on to the second step when Îśvara asked him for the third time whether he had to give him any other message, and this time he was put in mind of the mango-tree, and said:—

"In a certain forest stands a mango-tree bent down with the load of its fruit, and it complains that it has been in that position for twice twelve years, but no living creature eats of its fruit."

The boy was ordered to tell the tree that at its foot was buried a box containing **great treasure**, which box the first passer-by should be allowed to dig out and take away, and then its fruit would be eaten.

He came down to the first step and he was again stopped by Îśvara and asked if he had no more to say, and he thought of the jack-fruit tree. He said :—

"At a great distance from here grows a jack-fruit tree which has been in existence for twice twelve years, but unfortunately has borne no fruit through all this long period."

Upon this Îśvara said :—"In the trunk of the tree is hidden an immense quantity of gold, which if the tree gives up to the first passer-by, it will produce fruit abundantly, such as its kind has never borne."

Hearing this the boy left. He was asked over and over again if anything more was to be said, but he replied in the negative, and took leave of the supposed holy man.

When he had passed the sea, which closed up after him, he came on the whale to whom he told what Îśvara had said, upon which the whale replied :—

"For twice twelve years have I been lying here and have seen no other human being besides yourself; and as you have been the instrument of my delivery I will give the box containing the precious gems to you, take it and be happy."

Thus saying the whale threw up a box, which the boy took up, thanking the whale; and behold! the waves of the sea came up foaming furiously, and rising higher and higher encircled the whale and drew him again into his mother, the ocean.

Taking the box the boy came to the city the king of which was building the tank, and delivered the message of Îśvara to the king. The king, whose greatest ambition was the welfare of his subjects, willingly risked half his kingdom. It also happened that this boy was the only foreigner who had ever passed through the dominions of this king, and consequently he was selected as the fortunate recipient of half the kingdom and the king's daughter in marriage. The gift and the marriage were therefore offered to the boy, who readily and with great pleasure gave his assent; and this brought about the completion of the tank.

In due time the wedding was celebrated with great pomp, and our hero, as a prince and the son-in-law of a great Râjâ, proceeded on his journey homewards, accompanied by a retinue of many soldiers, horses, elephants and camels, laden with costly articles. In this way he soon came upon the mango-tree and delivered the message of Îśvara to the effect that a great treasure was lying buried at its foot, and that the tree should allow the first passer-by to unearth it and take it away, when its fruit would be eaten to the very last.

On hearing this the tree said to the boy :—"I have been standing here for twice twelve years and have seen no human being besides yourself; therefore the treasure is yours, take it and enjoy it."

The boy got the treasure dug out, and no sooner had he taken possession of it, than all the retinue climbed up the tree, and ate each and every mango that was on it.

They soon left the place, and after a long time came to the jack-fruit tree, which was waiting impatiently to hear from the boy, whether he had met with Îśvara and what news he had brought concerning itself. The boy replied :—

"Îśvara has ordered me to tell you that in your trunk is hidden an immense quantity of gold which should be given to the first passer-by, and then only you will blossom and bear fruit."

The jack-fruit tree, when it heard the command of Îśvara at once burst open its trunk from which fell out heaps upon heaps of gold, all of which was left at the disposal of the boy; and lo! the tree, the same moment, blossomed and bore fruit such as its kind never bore before, and in such quantity that it was nigh breaking with the weight.

Leaving this place, the boy, with all his retinue and the treasures he had got from the trees, took the road to his native place, where his mother was still living in a wretched hut. He therefore went in advance, hired a splendid abode, and prepared his mother for the reception of his royal bride.

A little while after the retinue arrived. The boy and his mother came out to receive them, and conveyed the bride to their new residence. Being now well settled and having large resources of wealth at their disposal, the boy lived with his royal wife to a good old age, occasionally paying and receiving visits from his royal father-in-law. He also did many charitable deeds and was loved and respected by all around him.

Ek garib sokra zo gela Isvarache sudila.

Èk hôthî dôkrî âni tichâ sôkrâ giâchâ dhandâ hôthâ lôkhâchim dhôram chârâvâ nevâchi. Thiâcham pagâr hôtham murâd thauram, âni bizâ kains ûpai nôthâ. Môthâ dûbalchâr, aurethûc guê murâd vakhât êkê gevnâsim khusî hôth. Murâd thêp aissam sâllam âni sevtâs thô sôkrâ bêzârlâ âni vichâr kêlâ guê zâvan Îsvarâchê sûdilâ âni vichârâvam guê sârê dûniâmani thiâlâ êkliâlâ kâm thêvilam garîb.

Aissâ vichâr karûnsim thiâzûn âislâ sângathlam rôtiâ bhâzâvâ sangâthi nêvâlâ. Dôkrîzûn bâzrichiâ rôthiâ bhûjaliâ âni diliâ sangâthi.

Thiâ sôkriâzun thiâ rôtiâ âni êk kurâd gêvûnsim gêlâ Îsvarâche sûdilâ. Châl Châl gêlâ murâd lâmb. Thavam râth zhaili bhârim. Baislâ êkê phausâ buram, thauri rôti khâli âni ninzlâ. Sakâlchâ ûthûnsim zâum lâglâ, thavam thiâ phansâzûn pêkhvilam âni khabar kelam guê kaitim zâtês. Sôkriâzûn sângathlam guê Îsvarâche sûdilâ, thavam thô phanas bôthlâ :—

"Baram, zar tûlâ Îsvar bhetlâs thar aurâ mânzâ nirap dhês. Sâng Îsvarâlâ guê bârâ âni bârâ chauvis varsam zhailim mânâm pûn mâvar êk phal âzûn ailam nâhin."

Sôkrâ kabûl zhailâ, sangâthi dôr hôthâ thiâvar êk gânth mârli nâhin visrâvâ kartam, âni chaltâ zhailâ.

Bizâ êk dhis châllâ. Râthchi bâzrîchi rôti khâli, âni êkê âmbia khâlim ninzlâ. Sakâlchâ zâtham thiâ âmbiazûn khabar kelam thiâ sôkriâpar guê kaiâm zâthês. Sôkriâzûn sângathlam guê zâthaim Îsvarâche sûdilâ. Thavam âmbâ bôlûm lâglâ :—

"Zar tûlâ Îsvar bhetlâs thar aurâ mânzâ nirap dhês, guê bârâ âni bârâ chauvis varsam zhailim mânam pûn aurê thêpân mânge phalâlâ kôni sivlam nâhin" "Baram," bôthlâ thô sôkrâ, âni dhûsri gânth mârli dôrâlâ, âni châltâ zhailâ. Zâtham zâtham pônchlâ êkê gânvâlâ. Taiâ gânvâchâ râzâ khanith hôthâ êk thalam thiâchê raitêchê kartam, pûn thêm thalam kain pûram hôth nôtham. Êkê thavâr bâulânsim bigê thavâr bândûm lâglim kâ paili bâzâ khôsalthasê, âni thi bâzû dhûrûs kartham dhûsri bâzû khôsalthasê. Aissam kartham bârâ âni bârâ chauvis varsam bhârlim. Râjâlâ khanthi dêkhânsim thiâ sôkriâzûn thiâlâ vichârilam guê aissam kam. Râjâzûn sângathlam, âni manghâm thiâzûn sôkriâpar khabar kelam kaiâm zâth hôthâ thê. Thiâzûn bôthlam : "Zâthaim Îsvarâchê sûdilâ." Thavam Râjâzûn bôthlam :—

"Aurâ mânzâ nirap sângh Îsvarâlâ. Bârâ âni bârâ chauvis varsam zhailim guê mim thalam bândhithaim thê mangê râithêchê kartham, pûn êkê thavâr bândhûnsim bigê thavâr bândhûm lâglûm kâ pailî bâzû khôsalthê, âni thi dhûrûs kartham bigi bâzû khôsalthê, âni thêm thalam kain pûram hôi nâhin. Khabar kar Îsvarâpar aissam kam, âni minzûn kâ karâvam."

Thô sôkrâ kabûl zhailâ, thisrî gânth mârli dôrâlâ âni châlthâ zhailâ.

Chanthâ dhis châllâ âni ponchlâ êkê bandhrâlâ. Thaiâm ôtham râth zhaili, rôti rêlthi thi khâli âni ninzlâ. Sakâlchâ ûthlâ thê êk môthâ manghalmâsâ nadhrên parlâ sûkhê zaminivar. Thô guêlâ mâr, thavam thiâ manghalmâsiazûn thiâpar khabar kelam kaiâm zâth hôthâ thê. Sôkriâzûn sângathlam guê Îsvarâchê sûdilâ. Thavam thô manghalmâsâ bôthlâ :—

"Zhar tûlâ Îsvar bhêtêl thar mânzâ nirap dhês, guê bârâ âni bârâ chauvis varsam zhailim mânâm sâkhê zaminivar parlaum thê, pûn aurê têpân êk thari phêns aili nâhin mânâm dhariâmani zhâvâlâ."

Sôkrâ kabûl zhailâ, chauthi gânth mârli âni dhariâmani dhaum mârli. Thavam baghâ kâ zhailam, êk rasthâ zhailâ, âni sôkrâ sûkhê paim châlûm lâglâ. Murâd lâmb châlliavar êk ghar ailam, thiâ gharâchê savê pairivar baislathâ Îsvar, pûn thiâ sôkriazûn ôlkhilam nâhin.

Îsvarâzûn khabar kêlam thiâpar: "Thûm kôn hais âni kâ paige tûlâ?" Thavam sôkriâzûn zavâb kêlâ : "Mim ailam Îsvarâchê sûdilâ. Sâng mâlâ tûlâ khabar aisêl thê, Îsvar kaiâm milêl thê." Îsvarâzûn bôthlam : "Thûlâ kâ paigê Îsvarâchê mêrê mâlâ sângh âni mim tûlâ âdhâr dhên."

Thavam thiâ sôkriâzûn sângathlam thô kôn hôthâ thô âni kaissâ ailâ Îsvarâchê sûdilâ. Îsvarâzûn sângathlam thiâlâ gharâ zâvâla âni bôthlâ guê thiâ dhissâsim thô hoil khâûn piûn hûnsâr.

Auram aikûnsim thô sôkrâ deulâ chauthê pairivar. Îsvarâzûn hôlhârilam âni khabar kelam bizam kain sângivâcham aisêl thê. Thiâ vakthâm thiâlâ viâdh parli manghalmâsiâchi âni sângathlam Îsvarâlâ guê êk manghalmâsâ parlâ sûkhê zaminivar, âni bârâ ani bârâ chauvis varsam zhailim thiâlâ pûn aurê têpân êk bi phêns nâhin aili thiâlâ dhariâmani nêvâ sârki.

Îsvar bôthlâ : "Sângh thiâ manghalmâsiâlâ

guê thiâchê pôtâmani hai êk pêtti hiriaṁ môthiâṅchi. Zar thi pêtti thô vôkil âni pailê vâtsarialâ dhêl thar êk phêṅs ail âni thialâ nail dhariâmani."

Auraṁ aikûnśiṁ thô sôkrâ deulâ thisrê pairivar, thavaṁ Îśvarâzûn dhûsrûn pêkhvilaṁ âni khabar kêlaṁ: "Bizaṁ kaiṅ sângâvâchaṁ hai?" Thavaṁ sôkrialâ viâdh parli râjâchi âni thô bôthlâ: "Èkê gâṅvâmani êk râzâ hai, thiâzûn êk thalaṁ bândath ghâthlaiṁ, pûn bârâ âni bârâ chauvis varsaṁ zhailiṁ thari thêṁ thalaṁ kaiṅ puraṁ hoi nâhin. Èkê bâzû bândhûnsiṁ bige bâzû bândhû lâghthân kâ paili bâzû khôsalthê âni thi dhûrûs karthaṁ bigi bâzû khôsalthê. Thiâthô thiâzûm sângathlaiṁ vichâràvâ guê thiâzûṅ kâ karâvaṁ."

Îśvarâzûn bôthlaṁ: "Sângh thiâ râjâlâ guê thiâchê manâmani aiśel thiâchê raithèchaṁ barêpan thar thiâzûn âplaṅs ardhaṁ râz âni sôkri dhiavi pailê vâtsarialâ, thavaṁ theṁ thalaṁ puraṁ hoil."

Thavaṁ thô sôkrâ ûtharlâ dhûsrê pairivar âni Îśvarâzûn thisrûn khabar kêlaṁ: "Bizaṁ kaiṅ sânghâvâchaṁ hai?" Thavaṁ thiâlâ viâdh aili âmbiachi âni thô bôthlâ:

"Êkê rânîmani hai êk âmbâ. Thô sângthai guê bârâ âni bârâ chauvis varsaṁ zailiṁ thiâlâ thaiâṁ ûpazlai thê, pûn aurê varsân bilkul kôni thiâchaṁ phal khai nâhin."

Îśvarâzûn sângathlaṁ thiâ âmbialâ sângâvâ guê thiâchê bûndhâśiṁ hai êk pêtti môthê dhanâchi. Zar thi pêtti dhêl pailê vâtsarialâ thê mânsaṁ thiâchaṁ phalân phal khâthin.

Èṁ aikûnsiṁ deulâ pailê pairivar, pûn Îśvarâzûn thiâlâ hôdhârilaṁ âni magâri vichârilaṁ kaiṅ sângâvâchaṁ aiśel thê. Thiâlâ phansâchi viâdh parli âni thô bôthlâ: "Mûrâdh lâmb anśiṁ êk phanis hai. Thô bôlthê guê thiâlâ bârâ âni bârâ chauvis varsaṁ zhailim pûn adhiap thiâvar phal ailaṁ nâhin."

Îśvar bôthlâ: "Sâng thiâ phansâlâ guê thiâchê bhûndâmani hai murâd dhan. Zar thêṁ dhan dhêl paile vâtsarialâ thar thô phalâṅśiṁ bharêl."

Auraṁ aikûnnśiṁ thô deulâ âni châlthâ zhailâ. Îśvarâzûn pêkhvilaṁ âni hêdhun hêdhun khabar kêlaṁ bizaṁ kaiṅ sânghâvâchaṁ aiśel thê. Thiâzûn bôthlaṁ nâhin âni châlthâ zhailâ.

Dhariâ passâr kêliavar rasthâ bandh zhailâ, âni manghalmâsâ bhêtlâ, âni thiâlâ gêṁ Îśvarâzûn bôthlathaṁ thêṁ sângathlaṁ. Thavaṁ thô manghalmâsâ bôthlâ: "Bârâ âni bârâ chauvis varsaṁ zhailiṁ miṁ parlauṁ thê pûn tûgê śivai bizaṁ kôniṁ êi zai nahin, thar thûṅs gê thi pêtti âni khûśal hô." Aissaṁ bôlûnśiṁ thi pêtti vôkilâ âni thiâs vakthân zâr ailâ âni thiâ manghalmâśialâ dharian nêlaṁ.

Thi pêtti gêûnśiṁ thô sôkrâ gêlâ thiâ gaṅvâlâ zaiâṁ kâ râza thalaṁ bândhith hôthâ âni Îśvarâcha nirap sângathlâ thiâ râjâlâ. Thô râzâ, giachaṁ dhian mian hôthaṁ thiâchê raithêchê barêpanâvar kabûl zhailâ ardhaṁ râz âni thiâchi sôkrî dêvâlâ êkê vâtsarialâ.

Athaṁ aissaṁ zhailaṁ guê hia sôkria śivai bizâ mânûs kôni thia gâṅvânśiṁ passâr zhailâ nôthâ, thiâthô râjâzûn thialâs thiâchaṁ ardhaṁ râz âni sôkrî dhili. Thaurê dhissân varâd zhailaṁ. Thavaṁ thiâ thaliachaṁ bândkâṁ saṁpûrlaṁ. Athaṁ thô sôkrâ êkê râjâchê zâvaim parman gêlâ gharâ, thiâchê sangâthi paltani, ghôrê, hathi âni hûttaṁ, âni murâd dhan âni mâl. Zâthaṁ zâthaṁ ailâ thiâ âmbiachê mrê, âni thiâlâ Îśvarâchâ nirap dhilâ.

Thavaṁ thô âmbâ bôthlâ: "Bârâ âni bârâ chauvis varsaṁ zhâiliṁ mânâṁ pûn aurê varsân tûgê khiris bizaṁ kôni avârśiṁ êi zai nâhin, thar thûṅs kûrau âni thêṁ dhan nê."

Thiâ sôkriâzûm hukum keli thêṁ dhan kurvûn kârâvâ, âni kûrvithûs sâriṁ mânsaṁ charliṁ âni phalân phal khâlaṁ.

Anśiṁ gêlâ âni zâthaṁ zâthaṁ bhêtlâ phansâlâ âni thiâlâ sângathlaṁ: "Îśvarâzûn sângatlaiṁ guê tûge bûndhâmani hai murâd dhan. Zar thêṁ dhan dhêśil pailê vâtsarialê thê thûvar phûlaṁ âni phalaṁ êthin."

Auraṁ thiâ phansâzûn aikûnśiṁ thiâchaṁ bûndh ugrilaṁ, âni râśiśiṁ sônaṁ parlaṁ âni thêṁ dhilaṁ thiâ sôkriâlâ, âni thiâs vakthân thiâvar phûlaṁ ani phalaṁ ailiṁ aurethûk guê thiânchê bhârâśiṁ thô phanis môrthôthâ.

Anśiṁ niṅgâlâ âni thiâchê gharchâ rasthâ dhêlâ. Thô gêlâ puraṁ thiâchê aislâ khabar dhêvâlâ. Thi adhiâp rêthaśê êkê zhômpriâmani. Thô gêlâ âni êk môthaṁ ghar gethlaṁ bhâriaśiṁ. Thaurê vakthâśim thiâchi paltan biltan pôṅchliṁ. Thô sôkrâ âni thiâchi âis niṅgâliṁ bhêtâvâ âni râjâchê sôkrilâ nêlaṁ thiânchê navê gharan.

Athaṁ thiâchê mêrê murâd dhanmâl zhailaṁ âni thô sôkrâ rêlâ thiâchê baikôśiṁ khûśâlin. Thiâzûn thari murâd dharaṁ kêlâ âni sârim mânsaṁ thiâlâ baraṁ châliṁ.

A NOTICE OF THE ZAFARNAMA-I-RANJIT SINGH OF KANHAYYA LAL.

BY E. REHATSEK.

(*Continued from p.* 312.)

26. His desire of subjugating **Kashmîr** having again become dominant, the Mahârâja determined to attack Muḥammad Âẓim, the Afghân governor of it, and went against him in St. 1871 [A.D. 1814] with numerous Râjas of the mountains, accompanied by their forces. He remained for some time at Siâlkôt, till he was joined by his allies, and then marched into the mountains where also 'Az Khâṇ, the chief of **Râjâurî** came to meet him, paid him homage, and tribute. Then Ranjît Singh went on to Ḍêra Bahrâm,[19] where he encountered a force of the enemy but routed it, whereon it took refuge in the fort, which was besieged and surrendered. Then he continued his progress to **Pûnchh**, where he halted several days and sent an envoy to Muḥammad 'Aẓim, requiring him to submit, and the latter replied that he was not subject to the Máhârâjâ, but to the Shâh of Kâbul, who had entrusted him with the government of Kashmîr, which he was prepared to defend. Ranjît Singh now determined immediately to attack him, and crossing the Pîr Panjâl Range marched to **Hîrâpûr,** where he found numerous Afghân and Kashmîri forces collected, and gave them battle. During the fight, so violent a fall of rain took place that it caused an inundation, and, the cold being very intense, disheartened the Pañjâbîs so much, that they were defeated; three of their high officers being killed, namely, Gurû Singh, Mahêshâ Singh, and Dasâ Singh. Whilst the battle was yet raging, the treacherous 'Az Khâṅ, who had joined the forces of Ranjît Singh only on compulsion, informed him that most of the troops left by him at Hîrâpûr had been slain or captured. This news was false, but was believed by the Sikhs to be true, and Ranjît forthwith retreated in great haste to Bhimbar on the frontier of Kashmîr, but on ascertaining that 'Az Khân had made a mendacious statement, he desired immediately to return and subdue Muḥammad Âẓim. The *sardârs* of his Court, however, made strong representations to the contrary, boldly giving him the advice to retreat with his forces to Lâhôr, which he was ultimately compelled to adopt. They also suggested that in Lâhôr preparations might be made for renewing the campaign if necessary, but that meanwhile the Mahârâjâ ought to send to the Afghân governor of Kashmîr a conciliatory letter, mixed notwithstanding with threats, counselling him to abandon the siege of Hîrâpûr, and to allow the Sikh garrison to depart. This Ranjît Singh did, and was in a short time joined by the garrison of Hîrâpûr, which had capitulated, and brought a friendly reply from Muḥammad 'Âẓim. The march back to Lâhôr now began immediately, but the **Dîwân Mohkam Chand,** who had already fallen sick in Kashmîr, expired on arriving in the capital of the Pañjâb. His loss was much deplored by Ranjit Singh, who appointed his two sons **Râmdiâl** and **Môtîrâm** to succeed him as Dîwâns, and put them in charge of various military expeditions. Disturbances were now raised by the **Khatak** tribe of Afghâns and by other malcontents in the districts round **Makhad**[20] and they besieged the small Sikh garrison left in the fort of that name. This information having reached Aṭak, troops marched forthwith from that place to relieve the garrison, but were totally defeated by the Afghâns, whereon Ranjît Singh came in person with his forces, dispersed the rebellious *zamîndârs* to the four winds, relieved the distressed garrison of Makhad, and conquered the district again. A portion of the vanquished rebels having been slain and the remnant made prisoners, the troops departed.

27. Having for a long time entertained the design of subjugating the Nawâb of **Multân,** and becoming master of the whole Pañjâb, Ranjît Singh despatched an army under the command of **Dîwân Bhawânîdâs** to Multân, who, on his arrival, pitched his camp near the city, but found the gates of it locked. The Nawâb, by name **Muẓaffar Khâṅ,** had paid his tribute and *nazarâna* regularly during several years, but had at last fallen into poverty, and

[19] *i.e.* Bahrâmgalâ, near the Pîr Panjâl Pass.

[20] Makhad is a fort 50 miles S. of Pêshâwar on the left bank of the Indus.

now possessed only an exhausted treasury; so he determined to resist further demands with an armed force, which he had collected from the surrounding Muslim population, calling upon it to fight for its religion. After waiting for some time, the Dîwân at last opened fire on the fort, which was however most energetically returned from the ramparts, and a desultory warfare ensued, in consequence of which the Dîwân Bhawânîchand[21] asked for reinforcements, which were granted, and consisted of an army of ten thousand men. When these troops, who had made forced marches, arrived, siege batteries were immediately erected, and a breach in the fort-wall was made, giving admittance to a storming party; whereon the Nawâb, who now perceived the great danger of his position, promised to give to Bhawânîdâs all the money at his disposal, or in more plain language, offered him a very large bribe, which the Dîwân accepted. He immediately ceased his hostilities and indited a mendacious letter to Ranjît Singh, informing him that the Nawâb was too powerful to be subdued at present and that, such being the case, the Sikh forces were only being wasted, but that in a future campaign with fresh troops they would certainly be successful. After despatching this letter, Bhawânîdâs returned to Lâhôr. The Mahârâjâ, disgusted with the results of this campaign, reproached Bhawânîdâs with being a traitor, bribed by the enemy after he had almost obtained possession of the fort; accordingly he put him in chains and, casting him into prison, confiscated all his property, but nevertheless again liberated him after the lapse of a few months.

The desire of conquering **Multân** having again become uppermost in his mind, Ranjît Singh made great preparations for a new campaign and appointed his own son, Prince Kharak Singh to command it, with instructions to deprive the Nawâb of the district and all the wealth he possessed. The Mahârâjâ also ordered the **Dîwan Dêvîchand** to collect a number of siege guns and to second all the efforts of the prince to the best of his ability. The gates of the fort having been found closed when the army arrived, the siege began as soon as the guns could be put in position, and firing continued till breaches could be opened, and then scaling ladders were applied in various places, and the first man to climb over the rampart was **Sâdhû Singh,** who was followed by thousands of others. When the Nawâb beheld the Sikhs thus rushing into the fort, he resolved to die sword in hand; and courting martyrdom in green habiliments, sallied forth with his Muslims, who were slain in the contest as well as three of his sons, and when the fourth was captured, the Nawâb became more furious than ever and fought till he was cut down. When all resistance had ceased, the Sikhs plundered every street, *bâzâr* and house, getting so excited and indulging so long in this occupation, that the Dîwân, whose orders to cease plundering were disobeyed, succeeded only after many efforts in quelling the tumult. He collected on behalf of his government all the wealth of the Nawâb and despatched it to Lâhôr, where the Mahârâjâ ordered the whole population to make preparations for rejoicing, as soon as a courier with the news of the victory arrived. When the booty, which consisted of gold, silver, precious stones, shawls, silk cloth, and every kind of valuable article arrived, Ranjit Singh was engaged in banqueting, and on meeting the Dîwân, bestowed on him a rich dress of honour, not forgetting however his own son Kharak Singh, whose position he likewise exalted. He even tried to console **Sarfarâz Khân**, the captured son of the late Nawâb, by presenting him with the *qasba* of Sharaqpûr as a *jâgîr*, and when the unfortunate youth recounted to the Mahârâjâ the fearful atrocities committed by the Sikhs whilst plundering the town, the Dîwân excused himself by stating that he had, on the said occasion, lost all control over the troops, who refused to obey him. But Ranjit Singh ordered, on pain of his sore displeasure, every soldier to disgorge the booty he had brought from Multân, which having been done, he removed the bulk of it to his own treasury, and distributed the rest among the poor.

28. Information having arrived from **Kâbul** that **Fath Khân**, the *wazîr* of **Mahmûd Shâh**, had fallen into disgrace and been deprived of sight by the **Shâhzâda Kâmrân**.

[21] Called Bhawânîdâs a few lines previously.

Governor of Hirât,[22] and that a civil war was raging in Afghânistân, the Mahârâjâ considered this a good opportunity for conquering both Pêshâwar and Kashmîr, the more so as the latter province was now governed by **Jabbâr Khân,** whom Muḥammad 'Âẓim had left as his *nâib*, or lieutenant, when he retreated to Afghânistân. Ranjît Singh accordingly marched in the direction of Pêshâwar, and in a short time crossed the Râvî, the Chinâb, and the Jhêlam, but when he reached the banks of the Indus, he found no boats, and crossing it without any, in an almost miraculous manner, on horseback, with his army, safely reached the opposite bank, conquered the fort of Khairâbâd and then the fort of Jahângîr, whereon **Firûz Khân**, the chief of the **Khatak** tribe of Afghâns humbly came to pay him homage. When **Yâr Muḥammad,** the governor of **Pêshâwar** heard of the approach of Ranjît Singh, he forthwith retired to the Yûsufzâi mountains, and the Mahârâjâ took possession of the fort, appointed **Jahândâr Khân** commandant of it, and departed again after a sojourn of only three days. Whilst encamped near Aṭak, Ranjît Singh received the offer of a *nazarâna* of a *lâkh* of rupees from Yâr Muḥammad, who also promised annually to pay a similar sum on condition of being reinstalled governor of Pêshâwar, and the Mahârâjâ consented. Meanwhile news arrived that Yâr Muḥammad had by the aid of **Dôst Muḥammad** nevertheless attacked Jahândâr Khân, and expelled him from Pêshâwar, of which they took possession. The Mahârâjâ at once despatched his son, Kharak Singh, with ten thousand men to reduce the two invaders, but the blow aimed at them was avoided by the arrival of the promised and long delayed *nazarâna*, and a profession of allegiance on the part of Yâr Muhammad. Having terminated this affair to his satisfaction, the Mahârâjâ returned with the money he had obtained to Lâhôr, but as his heart was bent on the conquest of **Kashmîr** he could not rest long.

The army having been got ready in St. 1876 [A.D. 1819] it happened at the same time that Jabbâr Khân, who was at that time Governor of Kashmîr, had not only dismissed but also disgraced and reduced to penury his Diwân, **Pâṇḍit Bîrbar** by name, on which the latter hastened to Lâhôr, breathing vengeance, and urged Ranjît Singh to subjugate Kashmîr. The Mahârâjâ consented to the proposal but apprehended that he would be disappointed in the enterprise, as on a former occasion, unless he could obtain the certainty of being supported by all the chiefs of the country. Accordingly the said Dîwân sent letters to the Râjâs, inviting them to make professions of loyalty to Ranjît Singh, and in a short time received satisfactory replies from many; and even **'Âz Khân of Bhimbar,** who had been an adversary, now promised to support Ranjît Singh, as well as the chief of **Râjaurî** and the commandant of **Pûnchh**:—wherefore the army at once began its march. **Dêvîchand** received orders to hasten to the town of Râjaurî and there to await the arrival of the Mahârâjâ; and Prince Kharak Singh was instructed to march with his portion of the army to **Jammuṅ,** and to await the arrival of the Mahârâjâ at the foot of the Himâlayas, but meanwhile to carry on intercourse with the mountain chiefs, and to make sure of their allegiance. Ranjît Singh went from Lâhôr first to Amṛitsar, where he performed his devotions in the temple of Râmdâs, distributed abundant alms among the holy men of that locality, and then quickly marched to Kashmîr, where he met with a friendly reception, because he was accompanied by the fugitive Dîwân. He nevertheless thought it convenient not to advance further after reaching Bhimbar. Having for some time remained in that pleasant town and concentrated his forces, he ordered Prince Kharak Singh, with Dêvîchand for his lieutenant, to advance, and they marched with friendly chieftains till they reached the **Pîr Panjâl Range** of the Himâlayas, where they encountered the enemy, and an action of several days' duration ensued in which the Sikhs were victorious. Having thus defeated the united Afghân and Kashmîr forces they continued their journey with the

[22] According to the *Târikh Sulṭânî* p. ٢٠٠ the Shâhzâda Kâmrân told his father Mahmûd Shâh, who was at that time sovereign of Afghânistân, whilst encamped near Hirât, that whilst their *wazîr* remained in power, they could be rulers of the country in name only; and when the next day the *wazîr* Fatḥ Khân paid them a visit, he pretended that the latter had taken the Shâhzâda Mâlik Qâsim, son of Hâjî Firûzu'ddîn, and had entered their harem. So the king put out the *wazîr's* eyes as a punishment. In the *Zafarnama* the name of the sovereign of Afghânistân is erroneously lithographed *Muḥammad* instead of *Maḥmûd*.

intention of conquering **Srînagar** likewise. **Samad Khâṅ** and **Mihardil Khâṅ,** the two principal Afghân officers of Jabbâr Khân, the Governor of Kashmîr, anxious to impede the further progress of the Sikhs, attacked them, but were again routed, and Mihardil was slain. Jabbâr Khâṅ now took refuge in the fort of **Shêrgaḍh,** whereon Ranjît Singh, meeting with no further opposition, at once entered the city of Śrînagar, accompanied by all the chiefs of the surrounding localities, who paid him homage. After having regulated the administration the Mahârâjâ intended to attack Jabbâr Khâṅ, who had shut himself up in the fort of Shêrgaḍh, and found that he had evacuated it, but left all his wealth behind, which pleased Ranjît Singh greatly. Having thus conquered Kashmîr, the Mahârâjâ appointed the **Dîwân Dêvichand** to be Governor of it, spent a couple of weeks at Râjaurî, then took the fort of 'Âẓimgaḍh with its Kashmîrî garrison by a single assault and marched back to Amṛitsar, where he made large presents to the temple of Râmdâs, and distributed alms. Lastly the Mahârâjâ returned to Lâhôr, where he bestowed robes of honour and other rewards upon his officers and troops, ordered general rejoicings to celebrate the victory, and dispensed hospitalities in royal fashion.

29. After the termination of the festivities the Mahârâjâ sent orders to Dêvîchand to march with all his forces to **Mânkêṛâ**[23] to realise by force the tribute which the Nawâb of that district had failed to pay. The orders were however countermanded by Ranjît Singh on being informed that the Nawâb had made very extensive preparations for resistance, and he marched in person to see what could be done. He crossed the Râvî, and on arriving in the district of the Nawâb the army plundered it right and left,—the **Sardâr Harî Singh** distinguishing himself especially in his raids upon Mathâ and Tiwânâ. Then Ranjît Singh went to Bhakar[24] but found that the garrison of the fort had evacuated it. He then sent **Dal Singh** to reduce the **Dêrâjât** and successfully captured several chiefs, but one Nânak by name, who governed **Dêra Isma'il Khâṅ** on behalf of the Nawâb, closed the gates of the fort, gave battle to the army, and being routed, abandoned to it all his wealth. Then Ranjît Singh again marched back to Mânkêṛâ, but the Nawâb bolted its gates, and the Mahârâjâ was under the necessity of laying siege to it for some time, although it surrendered at last.

The Mahârâjâ received kindly the repentant Nawâb in audience, and bestowed upon him the town of Dêra Isma'il Khâṅ with the district for a *jâgîr*. Harî Singh then entered the fort and laid all the wealth of it at the feet of Ranjît Singh, whereon he was rewarded with a gift of landed estates, and other officers received money. The Mahârâjâ then crossed the Biyâs, marched to Amṛitsar where he held a *darbâr*, and distributed largesse. He next again went to **Multân,** on approaching which, his boats were met at a distance of a couple of miles by a deputation of welcome on the part of the city, which he forthwith entered, and received numerous chiefs, who desired to pay him homage. The Hôlî festival having just begun, he celebrated it with much pomp, gave a royal banquet, and liberally distributed gifts. After the termination of the festivities the **Sardârs Harîdâs** and **Buḍḍhâ Singh** were despatched in the company of the prince Khaṛak Singh, with sufficient forces to **Bahâwalpûr** to compel the Nawâb to pay tribute, which he had failed to send for several years. First the Sikhs conquered the fort of Kôṭ Shujâ'a, expelling its garrison, and then plundered the district in every direction, although the Mahârâjâ had not given them permission, and in doing so they allowed themselves such terrible license that the Nawâb immediately sent all the money demanded to Ranjît Singh, who thereon praised him, sent out a robe of honour, and at once recalled his troops.

Information having arrived that throughout the whole **Hazâra** country in the neighbourhood of Mount **Darband** and **Tarbila,** the Muslim population had rebelled against the Sikh government, and that the inhabitants were ready to sacrifice their lives for their religion, Ranjît Singh ordered **Fatḥ Singh** the chief of **Kapurthalâ** with his troops, and **Ilâhî Bakhsh,** the commandant of artillery

[23] The town of Mânkêrâ is situated about midway between the Indus and the confluence of the Chinâb with the Jhêlam.

[24] Bhakar is on maps spelt Bakkar, and situated seven miles from the Indus, or about 30 miles N. W. from Mânkêrâ.

with his guns, in the company of the prince **Shêr Singh,** to march to the rebellious district, whilst the **Dêwân Râmdiâl** was to proceed in the same direction with the forces of the government. When the Sikhs arrived in the Hazâra country they met with great opposition, but as soon as their artillery begun to play upon the enemy they gave way and disappeared, whereon the Sikhs unmercifully plundered the district. As soon as the high officials had begun to regulate the administration, **Sadâ Kaṅwar,** the mother of Shèr Singh, also arrived with her forces, and, being a lady of great resources and much tact (for she was respected as if she had been a man), proposed that the people of **Rahtiâ,** a tribe on Mount Darband, should be attacked, and hostilities renewed for the purpose of subduing them, because in her opinion they would otherwise again cause disturbances. Accordingly the Prince Shèr Singh marched to annihilate them with sword and gun, but they resisted most valiantly, and being very numerous, surrounded the Sikhs, who were relieved only after the Dîwân Râmdial had come to their rescue, and after putting the rebels to flight pursued them to their stronghold of Rahtiâ. But whilst on the march, some of the brigands rushed from an ambush to attack him, and although the Dîwân fought bravely, prostrating a number of his assailants, they slew him at last. When the Prince **Shêr Singh** was informed of what had befallen the Dîwân, he swore to avenge him by exterminating every one of the rebels, and in doing so he burnt all their habitations likewise. When this information reached the Mahârâjâ he was so pleased with the exploit of his son, that he wrote to Sadâ Kaṅwâr to be proud of her boy, and to surrender to Shêr Singh all her estates, appointing him her successor. The lady, incensed at the proposal, sent back a message to the effect that she was amazed at Ranjît Singh's greed after wealth, as she had given him everything she was possessed of: that when she took Lâhôr with an army from a foe, she had surrendered it to him, protected him, raised him to the throne, and even made him her husband; and that having now become decrepit and old, she was by no means willing to part with her wealth and means of subsistence. When these words were repeated to the Mahârâjâ he was much vexed, but his relations with the lady being of so delicate a nature, he said nothing of any intention to punish her. Meanwhile several months elapsed. The **Rânî Sadâ Kaṅwar** threw to the winds her loyalty and assumed a hostile attitude, besides placing herself under the protection of the English by surrendering to them her ancestral *qasba* Badhânî, where she herself intended to take up her residence after crossing the Satluj. At this news the Mahârâjâ immediately summoned the lady to his presence, and reproached her for being in her old age yet attached to the world, and for having injured the interests of her son, who was also his own, by offering her possessions to the English, and threatened to abase her to the dust if she refused to give a share of everything she possessed to **Shêr Singh.** At these words Sadâ Kaṅwar heaved a deep sigh, shed a flood of tears, and said never a word, but determined, in order to save her honour, secretly to depart to the English. She executed her design, but, being overtaken by troops sent in pursuit, she was captured, brought back, and put in chains. Moreover, forces were sent to her district to take possession of all her movable property, money and jewellery, to expel her officials from every locality, and to take forcible possession of her favourite residence, the fort of **Mukêrî.** The forces reached the said fort, but were received with a shower of bullets, and, having no siege artillery at their disposal, were unable to take it, whereon the Mahârâjâ sent reinforcements and a sufficient number of guns in command of **Dêvîchand,** whom the Mahârânî Sadâ Kaṅwar was compelled to accompany, and to order to devastate the country. At **Vatâlâ,** the first locality of note which this commander reached, he caused rivers of blood to flow, but afterwards endeavoured to console the inhabitants by establishing a regular administration. Then he made raids on all sides and devastated everything till he reached the Biyâs, which he crossed, and hastened to Mukêrî, commencing forthwith to distress it by his artillery; but its defenders, faithful to the last, averred they would rather sacrifice their lives than surrender the fort without a written command to that effect from Sadâ Kaṅwar, whom alone they obeyed. Accordingly Dêvîchand requested the lady to give the needful orders, but she

replied that war was a fair game in which no necessity whatever demanded interference on her part, and that if Dêvîchand felt himself strong enough to conquer the fort he was welcome to do so. The Dîwân, being naturally displeased with such an evasive answer, determined to starve her, and, accordingly, withheld all supplies of food and drink. Having thus been reduced to the utmost misery, Sadâ Kaṅwar at last indited the letter required to the commandant of the fort, and he thereon opened the gates and admitted the Sikhs, who at once began plundering remorselessly. **Dêvîchand** sent a portion of the booty to Lâhôr, where the Mahârâjâ forthwith celebrated the victory by a royal banquet. When the troops returned, Ranjît Singh overwhelmed the Diwân with favours, and invested him with a robe of honour, presenting to Shêr Singh the district of Vatâlâ. **Sadâ Kaṅwar,** having been deprived of all she possessed was again thrown into prison, in which she expired a few months afterwards of a broken heart.

Information now arrived that **Muḥammad 'Âzim** had become *wazîr* in **Kâbul,** attained to great authority, and intended to reconquer **Kashmîr,** which had been wrested from him by the Sikhs. The Mahârâjâ accordingly made great preparations to resist the invasion by calling on all his vassals to aid him with their troops, and marched in person, crossing the Râvî, the Chinâb, and the Jhêlam, but encamping on the banks of the Indus which was much swollen. There being no boats at hand, a good swimmer was sent across the river to bring news about the enemy, and he returned with the information that great numbers of Afghâns had taken up a position on the Tehrî Mountain, but that their commander-in-chief, Muḥammad 'Aẓim, was still at **Naushahra,** and that they would march as soon as he joined them. The Mahârâja conceived that it would be best to surprise the enemy, and, immediately crossing the Indus in boats, ordered two of his French officers, the Generals **Ventura** and **Allard,** to march to Naushahra and attack Muḥammad 'Âẓim, whilst Colonel **Satgur Sahâi,** the commander of the **Akâlîs,** with the **Sardar Mahâṅ Singh,** received orders to attack the mountain. The two last-named officers were at once met by the Afghâns, who killed the first of them together with 200 Sikhs, and wounded the second, whereon the rest began to retreat, but after being reinforced by the Najîbs and the Bharmârîs[25] they put the Afghâns to flight. The Afghan troops who fought in that action were 3.200, and the Sikhs 2,500 in number. On entering Pêshâwar the Mahârâjâ was humbly received by **Yâr Muḥammad,** who had again supplanted Jahândâr Khâṅ as governor of that locality, and Ranjit Singh now confirmed him in his post. On returning with the army, the Mahârâjâ celebrated his victory with public rejoicings and largesses to the population as well as to the temples and mosques. Then he went to Amṛitsar, where he held a *darbâr,* ordered the town to be illuminated, distributed alms, and made arrangements for building a masonry wall round the town, which was totally unprotected, expressing his desire that every one of the notables of the town should assist in this undertaking. He also rebuilt the temple of Râmdâs of stone, adorning it with gold and precious gems, enlarging and embellishing, at the same time, the famous sacred tank of Amṛitsar.[26] *(To be continued.)*

[25] According to a marginal note there were four *paltans* of each. Some Hindustânî Muslims among the Najîbs. The Bharmârîs had long muskets.

[26] The meaning of "water of life," attributed to the word Amṛitsar in a marginal note by the author, is taken from the Muslim myth of Alexander, who had gone in search of that famous beverage which conferred immortality upon him who could find and drink of it; but the interpretation of "nectar pool" would be more correct. [Amṛitsar is simply the "lake of *amṛita.*"—Ed.]

MISCELLANEA.

CALCULATIONS OF HINDU DATES.

No. 7

In the inscription of king **Bhôjadêva of Kanauj** at **Dêôgaḍh,** about sixty miles to the south-west of 'Jhansi' in Scindia's Dominions in **Central India,** published by Gen. Cunningham in the *Archæol. Surv. Ind.* Vol. X. p. 101 and Plate xxxiii. No. 2, the date (from an ink-impression; lines 6ff, 10) runs — Saṁvat 919 Asva(śva)-yuja-śuklapaksha-chaturddaśyâm Vṛihaspati-dinèna Uttar[â*]-Bhâdrapad[â*]-nakshattrê idaṁ stambhaṁ samâptam=iti . . . . Śakakâl-âbda-sapta-śatâni chatur-aśîty-adhikâni 784,—"the year 919; on the fourteenth *tithi* in the bright fortnight of Aśvayuja; on the day of Vṛihaspati; under the Uttarâ-Bhâdrapadâ *nak-*

shatra, this pillar was finished; . . . . , seven centuries of years, increased by eighty-four, of the Śaka era; (*or in figures*) 784."

This gives us, for calculation, Vikrama-Saṁvat 919 and Śaka-Saṁvat 784, both current, according to the literal meaning of the text; the month Aśvayuja (September-October); the day of Vṛihaspati or Jupiter, *i.e.* **Thursday**; and the **Uttarâ-Bhâdrapadâ nakshatra.** The date, of course, is a northern date; but, as the given *tithi*—the fourteenth, is in a bright fortnight, this point is immaterial.

Taking the given Śaka year 784 as an expired year, Mr. Sh. B. Dikshit has obtained as the English equivalent, by both Prof. K. L. Chhatre's Tables and the *Sûrya-Siddhânta*, **Thursday,**[1] **the 10th September, A. D. 862.** The *tithi* ended 56 *ghaṭîs* 37 *palas*, or 22 hours, 34 min. 36 sec., after sunrise on that day. By the equal-space system of the *nakshatras*,[2] the moon was in the Pûrvâ-Bhâdrapadâ *nakshatra* up to 53 *ghaṭîs*, 31 *palas*, or 21 hours, 24 min., 24 sec., after sunrise on the Thursday; and she then entered the **Uttarâ-Bhâdrapadâ nakshatra**; *i.e.*, assuming sunrise at 6 a.m., only 2 hours, 35 min., 36 sec., before sunrise on the Friday. This, however, is a highly improbable hour for the completion, as stated in the record, of the pillar on which the inscription is engraved. But, by the unequal-space systems of the *nakshatras*, the Purvâ-Bhâdrapadâ *nakshatra* ended at 23 *ghaṭîs*, 40 *palas*, or 9 hours, 28 min., after sunrise on the Thursday; and the moon then entered the **Uttarâ-Bhâdrapadâ nakshatra**; *i.e.* roughly about half-past three in the afternoon,[3] leaving ample time, in ordinary working-hours, for the completion of the pillar before sunset.

This inscription, therefore, is of considerable interest, as indicating very plainly that one or other, if not both, of the more ancient unequal-space systems of the *nakshatras*,—one or other of which has to be applied in determining the *saṁvatsaras* of the Twelve-Year cycle of Jupiter mentioned in some of the Early Gupta records,—continued in use, in what had formed a part of the Gupta territory, down to at least the last half of the ninth century A.D.

Other points of interest in this inscription are (1) its giving, as the leading record of the date, a year of the era which, dating from the tribal constitution of the Mâlavas, came afterwards to be called the Vikrama era, but is not called so in this instance. (2) its giving, as an incidental detail, the corresponding year of the Śaka era and thus furnishing an early epigraphical instance of the equation of the two eras, and of a Śaka year quoted with full details for calculation. The Mâlava or Vikrama year quoted, is, of course, the northern year. Apart from the locality of the inscription, this is shewn by the Śaka equivalent; for the month Aśvayuja of the southern Vikrama-Saṁvat 919 would fall in Śaka-Saṁvat 785 expired, not 784; and Thursday, the 10th September A.D. 862, if applied to the southern Vikrama year, represents Aśvayuja śukla 14 of the preceding year, Vikrama-Saṁvat 918. And (3) its quoting as current, according to the literal translation, a Śaka year which, for the actual computation of the details, has to be taken as an expired year.

J. F. FLEET.

[1] This result is also given by Gen. Cunningham, in *Archæol. Surv. Ind.* Vol. X. p. 102. But by his own and Mr. C. Patell's Tables and process, the *tithi* would fall on Saturday, the 12th September.

[2] See Table II. on page 3, *ante*.

[3] The time, all through, is for Ujjain; as I have not the exact longitude of Dêogaḍh. Taking it, approximately, as 78° 15' E., the time, in each case, will be a little less than ten minutes later.

PROGRESS OF EUROPEAN SCHOLARSHIP.
No. IX.

Half a year of the Revue Critique d'histoire et de littérature.

(*a*) *Nov. 22nd.*—This contains a review of M. Sylvain Lévi's paper on the **Bṛihatkathâmañjarî of Kshêmêndra** in the *Journal Asiatique*, which has already been noticed in these pages, *ante*, Vol. XVI. p. 111. The notice from the pen of M. V. Henry is very favourable.

(*b*) *Dec. 6th.*—There is an article by M. Sylvain Lévi himself on Dr. W. Solf's essay **on the Kasmîr recension of the Pañchâsikâ.** This also has been previously referred to by me, *ante*, Vol. XVI. p. 282. M. Lévi's opinion is "that so numerous are the points in dispute, that the labour of Dr. Solf has rendered a service to the cause of science. He directs attention to an interesting critical problem, and if he has not definitely solved the question, he has, at least, clearly defined the points in issue."

(*c*) *Jan. 3rd*, 1887.—The second edition of the *Principien der Sprachgeschichte* **(Principles of the History of Speech)** by Professor Hermann Paul of Freiburg, one of the neo-grammatical school of philologists, is dealt with by M. V. Henry. According to the reviewer Professor Paul has been able to form a theory, and what is better, to abstain from following it to its ultimate consequences with rigorous inflexibility. He has written a book which is already, and which will, let us hope, become still more not only a breviary

for philologists, but an indispensable auxiliary to the researches of other students.

(*d*) *Jan.* 10*th*.—Professor Rockhill's **Life of Buddha** forms the text of a short but favourable review by M. Feer. The same number contains an article by M. F. Geo. Möhl, dealing with the *Etymologisches Wörterbuch der slavischen Sprachen*, by the great Slavonic scholar, Professor Franz Miklosich, who is already well-known to the readers of the *Indian Antiquary* for his *Comparative Grammar of the Gipsy dialects*. The present **Etymological Dictionary of the Slav Tongues** is an epoch in the history of Slav philology; for, while it is a concise *résumé* of the progress hitherto accomplished in this direction, it at the same time opens out a vista of new researches, showing clearly what remains to be done, and marking down the points which are doubtful or obscure. As for the purely lexicographical portion of the work, it is developed in the most complete and thorough manner. The **vocabularies of fifteen Slav Languages** have been abstracted and arranged, and every word compared and analyzed in the most minute detail. Derivatives and compounds are arranged under roots, with a system and clearness which render easy the reading of the longest articles. Omissions are rare and of small importance.

(*e*) *Feb.* 7*th*.—Another member of the neo-grammatical school is dealt with in this number by M. V. Henry, in a review of Professor K. Brugmann's *Grundriss der vergleichenden Grammatik der Indogermanischen Sprachen.* This important **Comparative Grammar of the Indo-Germanic Languages** has attracted so much attention, and been so widely and favourably reviewed throughout the civilized world, that a very brief notice of M. Henry's verdict will suffice here. He concludes his article as follows:—"It will be seen that this work, which has already become a classic, marks a halting place in the Science of Language, of equal importance with the **Grammar of Bopp** and the **Compendium of Schleicher.** Its place is allotted in all philological libraries next these venerable monuments, to which we owe every respect, but which no longer fulfil our requirements."

The same number contains a contribution to the dispute between **Dr. Zimmer** on the one side and **Dr. Whitley Stokes** and others *contra*. Surely the *irritabile genus* of scholars seems to flourish more strongly amongst Celtic philologists than in any other branch of linguistic study. The contagion of the National League and of boycotting has spread even to Old Irish MSS. In the present paper M. H. D'Arbois de Jubainville demolishes Dr. Zimmer's **Glossarium Hibernicarum** *e codicibus Wirziburgensi Carolisruhensibus aliis editarum supplementum*. Dr. Zimmer is roundly accused of plagiarizing from Dr. Stokes without acknowledgment.

(*f*) *April* 25*th*.—An important article by M. A. Barth in this number deserves a longer notice here than the above. It is a review of Dr. Gustave Le Bon's **Les Civilisations de l'Inde.**[1] Dr. Le Bon was despatched two or three years ago by the French Minister of Public Instruction on an archæological mission to India, the formal result of which took the shape of a report in 5 volumes folio, with more than 400 plates and photographs. The present work is an abstract placed at the disposal of the general public, but an abstract free from dryasdust details, a recital animated, often brilliant, and frequently discussing general questions in a manner always interesting, though sometimes with doubtful justice.

In these days profusely and handsomely illustrated books about India are by no means rare. In France alone, it is sufficient to mention the travels of MM. Grandidier and Rousselet, published by Hachette, of which the artistic portion is irreproachable. But none of these books come near the perfection attained in Dr. Le Bon's volume, either in the number and systematic choice of the plates or in their admirable execution. It is to be regretted that these beautiful illustrations are not accompanied by a real text, and it is tantalizing, as one looks through them, to catch glimpses of the work which it would have been so easy for the author to write, if he had chosen to narrate and describe more,—a work charming, instructive and useful to all, to the specialist and to the general reader, and readily saleable withal, for every one would find therein something interesting. But, adds M. Barth, we are not dealing with the book which Dr. Le Bon could have and ought to have written, but with that which he has written. It is well described by its title. It is an attempt to realize the different civilizations which have succeeded each other in India from the earliest times to the present day. What could have induced him to attempt so great a voyage, furnished as he was, it must be confessed, with rather scanty baggage? Perhaps the lightness of the baggage is itself

[1] *Les Civilisations de l'Inde*, par le Dr. Gustave Le Bon, chargé par le Ministère de l'Instruction publique d'une mission archéologique dans l'Inde. Illustrated with 7 chromolithographs, 2 maps and 350 engravings and heliographs after photographs, water-colours, and papers of the author. Paris, Firmin Didot and Co., 1887, vii. 743 pp. 4to.

one of the reasons. But I see two others. One,— all to the honour of India and Dr. Le Bon, that India has evidently made a vivid and profound impression upon the author. In the presence of this infinite diversity of men and things, of this medley of institutions and beliefs, of customs separated amongst us by centuries, but which live there side by side, he has had, so to speak, a vision of the past. The genius of history has come to speak to him amongst the ruins, and he has felt himself endued with the mission of declaring a revelation. Here we touch on the second reason. It is that he believes many things to be newer than they really are. Indianists, he tells us, have written a great deal about all this, but, as they have not seen India, they have misunderstood much[2] . . . But it is exactly because I value at least as highly as he does the merits of direct observation, that I regret the present work, and wish I could have found a few more personal reminiscences in the place of what he has been able to collect hastily from books on his return. At the same time material errors of omission and commission are comparatively rare, and one admires the good fortune, or to be more just, the tact and true historic feeling, with which he has been able to avoid snares, and to pass along the edges of quagmires without falling into them. He has not succeeded in avoiding being morassed a little with regard to the *Vêda*. He describes the Vêdic Aryans as knowing neither family nor race. No intermediary group of tribe, class, or government separated them. Neither rich nor poor, all equal. Religion itself was only the cult of race and family. Gods were confounded with ancestors, and the sacrifices to their ancestors, the funeral banquets, were the centre of this cult. All this picture is pure fantasy. He has also nearly gone astray in his dealings with the epic legends. At first he has followed Wheeler in fixing the conquest of Ceylon by Râma at fifteen hundred years before Christ, though he subsequently follows better authorities. He is wrong, too, in denying the existence of the feudal system in India;[3] but his description of the clan, borrowed from the admirable *Studies* of Sir Alfred Lyall, is excellent. It would have been still better if he had not confounded the Râjpût clan with the Râjpût State, two things altogether different, even in Râjasthân. He has besides estimated below their value the importance and number of existing inscriptions,[4] and he exaggerates the poverty of India in historical books; but he has had a clear and salutary idea of the deceitful *mirages* which are presented by the written tradition of the Hindus, and has not allowed himself to be seduced by the history drawn from it, which is still current in some publications.

Coming to the ethnographical portion of the work M. Barth remarks that the author has deeply studied the question of races. He has devoted a special work to it,[5] and has also dealt with it in his *Civilisation des Arabes*.[6] According to him races correspond to species in natural history. They classify themselves not by nationality, nor by religion, nor by tongue, nor even by anatomical characteristics. Their one criterion is an *ensemble* of attributes, intellectual and moral, confirmed by heredity,—a certain mental state constituting the race-genius, which is indelible. As regards India it must be observed that these conclusions do not tally well with the picture which he presents to us of the races of that country. They form an abstract theory without the counterproof of reality,—a sort of programme, but without the piece. He enumerates many races in India, but he shows us only one. When he talks of a mental state, it is only of the mental state of Hindus *in globo*; and he could not do otherwise, for these races are, before all, linguistic entities. Âryans, Drâvidians, Kolarians, Tibeto-Burmans, etc., differ continually both in their *traits*, and especially in their degrees of civilisation; but their classification is the work of linguists working on grammars and vocabularies, and generally caring little for the race-genius. Where the criterion of language fails, there remains sometimes a tradition, rarely true historic testimony, and where these fail there opens before us the plain of hypothesis pure and simple. To Dr. Le Bon, the Kûlis of Gujarât are Kolarians, and the Bhils Drâvidians. In reality, nothing is known about it, because these people no longer speak their own language. As for

[2] *Non cuivis homini contingit adire Corinthum*, alas, Yes! But does Dr. Le Bon not know that at least four-fifths of those Indianists have not only visited India, but have lived there, many of them for more years than he has passed months in that country. There is, however, a foundation of truth in the reproach. Sanskrit professors have now and then made for us a singular history of India, and some chapters of that history have come, *de ricochet en ricochet*, and lodged themselves in the very volume of Dr. Le Bon. It is true, too, that many 'Old Indians' have been even less discriminating than he has been.

[3] It developed in a different way from that in which it did with us. The fief did not spring from the freehold, but it exists almost to the present day, and in its most characteristic forms, *e.g.* in regard to immunities.

[4] "He speaks of 'some inscriptions' for an epoch of which the number of those that are catalogued and are of historical value, alone amounts to thousands. In connection with this, I am bound to say that Dr. Le Bon has not been just to the efforts of the English Government and to the *Archæological Survey*. . . That he has been able to date approximately the greater part of his monuments is due to the researches of that *Survey*."

[5] *L'homme et les sociétés; leurs origines et leur histoire*, 1881, 2 vols. 8vo.

[6] 1884, 1 vol. 4to.

Turanians our author divides them into Turani-Proto-Drâviḍians, Turani-Drâviḍians, Turanians come by the Turanian Gate (*i.e.* the Âsâm Valley), and Turanians come by the Âryan Gate (*i.e.* the valley of Kâbul). But positive ethnography has nothing to do with all this, for, so employed, the name is a mere word.[7] One point, however, very clearly seen by Dr. Le Bon, and at which he appears to have arrived independently, although he has not been the first to establish it, deserves notice here. It is that **the Âryans of India** are only brothers of those of the West by language, and that they are deeply mixed with people of an altogether different descent. Whence came these? And who were they? Drâviḍians, Aborigines, or Malays? We shall perhaps never know, but surely they were not Turanians, as Dr. Le Bon would have us believe, and it is scarcely more probable that they should have come from the north-east by the Turanian gate, for they have the skin brown or black, the hair curly, the cheek-bones slightly elevated, and the eyes well apart and not placed obliquely.

M. Barth is astonished that the author, who praises **Hindu art** so highly, should not be more indulgent to its literature. Each is sister of the other. They have the same qualities and the same defects, the same minute finish in detail and workmanship, and the same weakness in the *ensemble*, for forming which they know hardly any method other than mere piling up. To M. Barth, the *Râmâyaṇa* is the exact counterpart of Kailâsa. India can dazzle us; it cannot, under any conditions contribute to our education. Whatever people may say, before the arrival of the Musalmâns, it had not the art of building. Its own architecture essentially fails in proportion, because it fails in age. It has remained infantine and cyclopian, although, on the surface, the stone sometimes assumes the appearance of lace.

Dr. Le Bon's theories about **Buddhism** sharply differ from that found in many books. He shows that **it was not a religion without divinities, and that it was not violently extirpated** from India by the fanaticism of the priestly caste. He appears to have landed in India believing that Buddhism was an atheistic religion, absolutely distinct from other Hindu cults, and he must have been astonished to find its sanctuaries filled with idols, and sometimes with the same idols as those in Brâhmaṇic temples. The first Buddhism known in Europe was exactly that gross and idolatrous religion which Dr. Le Bon has refound. Later on, when it was possible to study the system in its texts, and at the source, it was declared to be philosophically atheistic. It is possible that, owing to reaction against the ancient opinions, the latter were subsequently left a little too much in the shade, and, now, subsequently, by the same progress of inquiries, they are again rediscovered. It is perhaps the fault of scholars; but a scholar's opinion is always more or less polemic, and to value it aright, it is necessary to know the preceding opinion to which it forms a sequence. But, in affirming that Buddhism, considered as a philosophico-religious sect (and for long it was only that, and in no way a cult) was atheistic, scholars did not dream of denying that it had inherited the Brâhmaṇic pantheon, and that, further, it had fashioned out of it a pantheon, for its own use **The texts known as the Nèpâlese,** so far as they are published, belong to the class of these writings most penetrated with mythology, and yet they have been unhesitatingly accepted as valuable authorities for the Buddhism of India, and not as peculiar to that of Nèpâl. Those rock-hewn temples of Ellòra and Nèpâl, which taught so much to our author, have not been only lately recognised as Buddhistic,—nay, the very grounds of their recognition were the images they contained,—and it is not only to-day that we are in possession of a religious iconography of what is conveniently but not quite correctly called **the Buddhism of the Mahâyâna** As regards the violent extermination of Buddhism, it has long been considered as legendary in works of authority, and there is now hardly any one except General Cunningham left to defend it. Can we explain this **gradual disappearance of Buddhism,** or as Dr. Le Bon puts it, its absorption into Brâhmanism, by supposing that the two religions approached each other gradually till they were confounded? M. Barth thinks not. The facts known to us point to nothing of the sort, not even in Nèpâl, and it is not thus that Hindu sects, provided with clergy, ordinarily are extinguished. They change

[7] Turanians have been introduced into Indian ethnography under two claims, (1) as ancestors of the Drâviḍian nations, on account of certain alleged linguistic affinities between the Drâviḍian Languages and those spoken by the nomads of Central Asia. These affinities have yet to be proved The few which appear to be well established, refer us to the North-West *i.e.* to the Brahuis of Afghanistân Drâviḍians are almost black, while the Turanians are fair, or slightly yellow. It can, in fact, only be a question of linguistic parentage. (2) As the residue of the hordes who have dominated for several centuries in the north-west of India, hordes without doubt greatly mixed, but of which the nucleus appears to have been formed by Tâtâr tribes These invaders were certainly very numerous and probably founded settlements in the country Resemblances of proper names have caused search to be made for their survivors among several nations of the Pañjab and of Hindustân especially amongst the Jâts, but as yet we have nothing positive on the subject.

much in their essential attributes; but they die because they no longer gain recruits, and it is probable that such also was the end of Buddhism. If it has survived in Nêpâl, it is, says Dr. Le Bon, that that country is to-day in the same phase of evolution as that in which India was in the 10th century. M. Barth doubts this. Peculiar history must be explained by peculiar causes. What peculiar causes have been at work in Nêpâl he does not know, but he suggests one cause which may have exercised some influence, *viz.*, that there are scarcely any true Brâhmaṇs in Nèpâl and it is permissible to suppose that it has been thus for long.

The work concludes with considerations on the India of to-day, and its future. Dr. Le Bon renders homage to the greatness of the work accomplished by England, but M. Barth considers this homage grudgingly given. The author draws back with one hand, with interest, what he has just given with the other. In fact, he is unjust. He admits the grand qualities of honesty, firmness, and dignity in the bulk of British officials, England, better advised than other nations, sending there her picked men, and yet he appears to attribute their ascendancy only to their haughtiness (*morgue*)! He dares to say that "till the Mutiny the Government of India was the exploitation pure and simple of 200 millions of men by a company of merchants, protected by bands of mercenaries," while he plainly avers that the substitution of the crown for the company was, in reality, only the official consecration of a state of things long since established in fact. He goes further. This régime of exploitation is still to continue; for among the five general rules which, according to him, direct the colonial policy of England, the 3rd is "that a colony should be considered as a property which it is necessary to exploit entirely for the profit of the mother-country." If he means by this to say simply that England does not deal in sentimental politics, that she does not act knowingly against her own interests, it is a truism. No nation would knowingly act so. If, on the contrary, he means that the conduct of England is coldly selfish and without compassion, M. Barth says that it is false, and he regrets, for the sake of Dr. Le Bon, that he has traversed India without perceiving it.

As regards the future, the author poses as a pessimist. According to him England is undermining her own work by the education which she gives to the natives. That work will perish by the Bâbû. In endeavouring to inculcate our ideas into brains which are not made for them, she is producing mischievous beings to whom it will be necessary, sooner or later, to yield a portion, greater or less, of the power of Government. That will be the commencement of the ruin. That the Bâbû is too often an impertinent and insupportable being, and that the question of public education in India is peculiarly complicated, and even full of perils, no one can doubt. But all this passage, in which (according to M. Barth) one seems to hear the passionate polemics raised in the English and Anglo-Hindu press by the measures of Lord Ripon, is marked with an evident exaggeration. For the last 50 years, and more, the question of education has been under consideration in India; it has been faced on all sides, and many systems have been essayed. What would that of Dr. Le Bon be? Would he have England build a wall of China round her colony? Could she do so? If she could, should she, that she may conform to the anthropological laws, which are not perhaps sufficiently ascertained, given us by the author? The Bâbû is known in other places besides India. He can be found here, in Europe, if wanted; but every native who has received an English education is not like him. * * * The law of races does not perhaps prevent our knowledge being communicated to them, their being taught to apply it, and their being taught gradually the details of public business. Already, in India, there are municipal committees composed of natives, more free in their sphere than town councils in France, and it does not appear that they have turned out badly. Let us hope then, with many well-informed English, that the sons of the Bâbû will be worth more than their fathers, and that England will not have some day to defend her work against another very different enemy. At present she is not seriously threatened from without: but if, as a consequence of events similar to those which have made Austria an Eastern power, Russia has to resign herself to becoming an Asiatic one, from that day the empire of England in India will be in a critical condition.

(*g*). *May 2nd.*—This number contains a review written by M. R. Duval of Mr. Budge's Edition of the Book of the Bee.[8] This work was written in the 13th century by Salomon, Metropolitan of Basrâ, who in the preface explains that just as the bee manufactures its honey from the nectar of flowers, so he has extracted from the Paradise of holy books, and of the works of the Fathers and

[8] *The Book of the Bee*, Syriac text, and English translation by Ernest Wallis Budge. Anecdota Oxoniensia. Oxford, Clarendon Press, 1886.

the Doctors, the materials of his work, which commences with the creation of the world, and ends with the Apostles. The book is really a **collection of legends** founded on the narratives of the Old and New Testament. It is a specimen of the apocryphal literature popular amongst the Jews in the early part of the Christian era, like the *Cavern of Treasures* brought lately to notice by Dr Bezold.[9] The *Book of the Bee* contains nothing original, and this, in the eyes of scholars, is its chief merit. It is a compilation from early apocryphal works, notably the *Cavern of Treasures* just mentioned Where it deals with the times of the Patriarchs, Jewish sources are still visible. It contains traditions which were current in the Jewish schools of Palestine and Mesopotamia, and of which the *Talmuds, Targums* and *Midrasim* have preserved only a portion. Of course Salomon did not know the Jewish originals, but the Syriac texts on which he founded his compilation, contained the traces. As a specimen of the legends which he preserves may be mentioned the **Adventures of the thirty pieces of silver of Terah,** the father of Abraham, which finally came into the hands of Judas Iscariot. Mr. Budge is said to have given a very correct text with a faithful translation, illustrated with judicious notes and references A useful glossary of words not found in Castel-Michaeli's dictionary or which are insufficiently explained therein, is also added.

(*h*). *May 30th* —M. A Barth contributes an important review on Prof Peterson's edition of the **Subhâshitâvali.** The work has been already noticed in this journal. Vol XV. p. 240 ff , and an account of the contents of the article is unnecessary; but it is worth reading for the many acute and scholarly explanations of doubtful passages.

(*i*) *June 6th* —Dr. Pischel's edition of the **Śṛiṅgâratilaka of Rudrata** and of **Ruyyaka's Sahṛidayalilâ** forms the text of a favourable review by M. Sylvain Levi.[10] The introduction of the work is chiefly devoted to a discussion as to whether Rudrata was author of the numerous erotic verses scattered through his well-known work on Rhetoric The reviewer considers these twenty-five pages the richest chapter which has yet been written on the history of Indian rhetoric Dr Pischel does not content himself with collecting all the information available regarding Rudrata, his family, and his literary career; but, with the help of unpublished texts he fixes the most modern date to which we can assign him, and throws unexpected light on the relative chronology of the oldest rhetoricians known; **Bhamaha, Udbhaṭa, and Vâmana.** Rudrata could not have lived before the middle of the 9th century; while Udbhata and Vâmana belong to the 8th. These bases once fixed, Dr. Pischel essays to prove that all the illustrative verses are the work of Rudraṭa; but his arguments are insufficient to carry conviction to the mind of M. Lévi.

The *Sahṛidayalîlâ*, published in the same volume is a simple formulary in five pages Each of the four short chapters is only a list of words. The first, attributes and conditions of beauty; the second, adornments: the third, youth; the fourth, devices for enhancing beauty. The work is perhaps of the 10th century, and is a curious example of its class. The review speaks highly of the execution of the work, and considers that the publication of the text puts us in the possession of a charming poetic anthology; while the preliminary essay of Dr. Pischel, whatever be the value of his conclusions, will henceforth be a document indispensable to Indian scholars.

(*j*). *20th June.*—This number contains a review by Prof. James Darmesteter of M. A. Barthélemy's edition of the **Gujastak Abalish,** or account of a theological conference presided over by the Khalifa Mâmûn (Pahlavî text published for the first time with translation, notes and glossary: Paris, Vieweg, 1887). This is the first work of the author. It is an account of a polemic controversy between Abalish, an apostate from Pârsîism, and Atar Farnbag, son of Farrukhzât, Highpriest of the Pârsîs at Fârs. The text is interesting and well edited, and the translation concise and clear.

This is followed by a long review by M Salomon Reinach on Dr Penka's new work. *Die Herkunft der Arier*,[11] the descent of the Âryans. The work is a continuation of the same author's *Origines Ariacae* published in 1887, in which he first suggested the **Scandinavian origin of the Âryan family.** The favour with which it has been received obliges the reviewer to analyze it in some detail. The author's ethnological arguments are handled with some severity, and the article concludes 'M. Penka has been encouraged by enthusiastic criticisms which have saluted his book as "the definite solution of the Aryan Problem:" he will allow us, while rendering every homage to his talent, not to associate ourselves with his errors.'

G. A. GRIERSON.

---

[9] V. Bezold, *Die Schatzhöhle*, Leipzig, 1883.

[10] *Rudraṭa's Śṛiṅgâratilaka and Ruyyaka's Sahṛidayalîlâ* with an introduction and notes, edited by Dr. R. Pischel, Kiel, Haeseler, 1886, pp. xxvi. and 103, 8vo. See also *ante*, Vol. XV. p. 287 f.

[11] Vienna 1886

THE PROBABLE AGE OF SOME PALLAVA REMAINS.[1]

THE history of the **Pallavas,** one of the mightiest royal families of the South, is still wrapped in obscurity, chiefly because none of their inscriptions are dated in the Śaka or any other well-known era. Besides, the identification of the names of kings which are mentioned in various inscriptions is very difficult and unsafe, as the Pallavas used to bear numerous *birudas*, or surnames, which were interchangeable with their real names. Thus the inscriptions in the first and second storeys of the Dharmarâja Ratha at the Seven Pagodas consist of a string of words in the nominative case, which were hitherto considered as names of deities, but which are in fact *birudas* of a Pallava king Narasimha; and the inscriptions of the Kailâsanâtha Temple at Conjeveram Kâñchîpuram) mention several hundred *birudas* of king Râjasimha of Kâñchî. The date of the king who founded the Kailâsanâtha Temple can perhaps be fixed by comparing the following facts

I. A Pallava inscription which was published by the Rev. T. Foulkes[2] gives the following succession of princes,—Simhavishnu; Mahêndravarman I.: Narasimhavarman I.; Mahêndravarman II.; Paramêśvaravarman I.; Narasimhavarman II; Paramêśvaravarman II.; Nandivarman.

II. An unpublished copper-plate inscription mentions the three kings,—Narasimhavarman I., Mahêndravarman II., and Paramêśvaravarman I; and calls Narasimhavarman I. the conqueror of Pulikêśi.

III. The inscriptions of the Kailâsanâtha Temple itself mention three kings,—1, Agradaṇḍa or Lôkâditya, who destroyed the army and the town of Raṇarasika; 2, his son Râjasimha, who built the principal part of the Kailâsanâtha Temple, which he called Râjasimhêśvara; and 3, his son Mahêndravarman, who constructed an additional building.

IV. An inscription published by Mr. Rice[3] records that the Châlukya king Vikramâditya II. made an expedition into the Tuṇḍâkavishaya or Toṇḍaimaṇḍala, defeated the Pallava king Nandipôtavarman, and entered Conjeveram, where "he gave heaps of gold to the stone temple called Râjasimhêśvara, which had been built by Narasimhapôtavarman, and to other temples."

From a comparison of Nos. III. and IV. it follows that the founder of the Kailâsanâtha, or Râjasimhêśvara Temple at Conjeveram, bore the two names Narasimhapôtavarman and Râjasimha. This king and his son Mahêndravarman might be further identified with Narasimhavarman I. and his son Mahêndravarman II. in Nos. I. and II. This is done under the supposition that the names of Râjasimha's father, as given in No. III, are only *birudas*, and that his real name was Mahêndravarman I., as recorded in No I. Thus much granted, we may try to identify Pulikêśi, the enemy of Narasimhavarman I. in No. II, and Raṇarasika, the enemy of Mahêndravarman I (*alias* Agradaṇḍa or Lôkâditya) in No. III. There were two Châlukya kings of the name Pulikêśi, the first a son of Raṇarâga, and the second a son of Kîrttivarman I. As Raṇarâga and Raṇarasika are synonyms and mean both "fond of war," we may identify the Raṇarasika of No. III. with the Châlukya Raṇarâga, and consequently the Pulikêśi of No. II. with the Châlukya Pulikêśi I. The Pallava Nandivarman mentioned in No. I. may be the same as Nandipôtavarman, the enemy of the Châlukya Vikramâditya II. in No. IV.; as No. I. gives four generations between Narasimhavarman I. and Nandivarman, while there were five generations between Pulikêśi I. and Vikramâditya II As the first Pulikêśi's second son Mangalîśa reigned from A.D. 597 to 610, we may place the Châlukya Pulikêśi I. and his Pallava antagonist Narasimhavarman I. or Râjasimha, who founded the Kailâsanâtha or Râjasimhêśvara Temple at Conjeveram, about A.D. 550. To the same period we may assign the Pallava king Atyantakâma; as the alphabet of his inscriptions at Mâmallapuram is closely related to the alphabet of Râjasimha's and Mahêndravarman's inscriptions at Conjeveram. Atyantakâma was the founder of the so-called Gaṇêśa Temple, Dharmarâja Maṇḍapa, and Râmânuja Maṇḍapa at Mâmallapuram; another inscription of his is found in the third storey of the Dharmarâja Ratha. The characters of Atiraṇachaṇḍa's inscription on the southern wall of the Śâluvankuppam Cave somewhat differ from those of Atyantakâma's inscriptions. As in a verse, which is common to the inscriptions of both kings, Atyantakâma's inscription contains an erroneous reading, while Atiraṇachaṇḍa's has the correct one, I should place Atiraṇachaṇḍa before Atyantakâma. The inscriptions of the Dharmarâja Ratha at Mâmallapuram, which, as stated above, belong to a Pallava king Narasimha, have been assigned by Dr. Burnell to about the fifth century A.D. for palæographical reasons.[4] Some Pallava coins, which the Rev. E. Loventhal, of Vellore, has collected at the Seven Pagodas, bear legends in still more archaic characters; three of the legends consist of *birudas* which are also found in the inscriptions of the Dharmarâja Ratha. It only

[1] From the *Madras Mail*, 3rd September 1887.
[2] *ante*, Vol. VIII. p. 273.
[3] *ante*, Vol. VIII. p. 23ff.
[4] *South Indian Palæography*, p. 37.

remains for me to remark that, according to one of the three Tamil inscriptions at the so-called Shore Temple at Mâmallapuram, this temple seems to have been founded by a Pallava king Kshatriyasimha, about whose age nothing is known.

E. HULTZSCH.

BOOK NOTICES.

INSCRIPTIONS SANSKRITES DU CAMBODGE; par M. A. BARTH. Extrait des Notices et Extraits des Manuscrits de la Bibliothèque Nationale, tome xxvii. 1re partie. 180 pp. in 4to. Paris, Imprimerie Nationale, 1885. Atlas, dix-sept planches in folio.

The first fac-similes of inscriptions from Cambodia were published in 1873, by Francis Garnier, the well-known traveller, in his *Voyage d'exploration en Indo-Chine* (Paris, 1873). Unfortunately they escaped the notice of Indian scholars. Other fac-similes, however, published in Paris, in 1879 and 1880, by Dr. Harmand, in the *Annales de l'Extrême Orient*, attracted the attention of Dr. Kern in Leiden, who deciphered them with the help of the Indian and Javanese alphabets, recognised that the language of several of the inscriptions was Sanskrit, and gave an interpretation of them. And, just about the same time, Lieutenant (now Captain) Aymonier, French Resident in Cambodia, being well acquainted with the modern writing and language of that country, was able to decipher similar inscriptions, with the help of the Khmêr alphabet, and to interpret some of them, written in the vernacular dialect (*Excursions et Reconnaisances*, fascicule IV. 1880). He also extracted from the inscriptions in the vernacular, chronological data for the age of the bilingual ones. Captain Aymonier profited by his stay at Phnom Penh, to collect inscriptions in the capital, and in Central Cambodia; and in 1882 he sent to the *Société Asiatique de Paris* more than twenty inscriptions, making a total of more than 1,500 stanzas, which were examined by a Committee, appointed by the Society, and composed of MM. Barth, Bergaigne, and Senart. The report of the Committee was drawn up by M. Bergaigne (*Journal Asiatique*, 1882, II. 139-230). With the materials in his hands, M. Bergaigne was enabled to make out a list of the kings of Cambodia, from the end of the sixth century to the beginning of the twelfth. The French Institute, alive to the historical, epigraphical, and philological interest of those monuments, applied to the French Government, in order that Captain Aymonier should be entrusted with an official mission to search for all remains of Cambodian epigraphy; and in 1883 Captain Aymonier sent to Paris 304 squeezes, of which 113 bear Sanskrit inscriptions, many of them containing more than one hundred stanzas. Those documents extend over six centuries and allow us to follow the series of the Cambodian kings, without any interruption, nearly to the time when manuscript history begins. How happy would the Indian epigraphists be, if they had the same good luck with any part of their vast domain! It was decided that those valuable monuments should be published under the auspices of the *Académie des Inscriptions et Belles Lettres*, and thrown into scientific circulation as soon as possible. The materials sent by Captain Aymonier, were divided between the three members of the Committee. M. Barth has been the first to fulfil his task; and he has done it in the sound and thorough way which was to be expected from so accomplished a scholar.

M. Barth has presented us with the text, translation, and commentary of nineteen inscriptions. The text is given in Roman transcription; but the accompanying book of Plates gives magnificent photogravures of the squeezes, after the *procédé* Dujardin; so that the student has the monument itself in his hands. These inscriptions belong to the oldest epigraphy of Cambodia at present known; though further discoveries, which may always be looked for, as M. Aymonier is still in the field, may bring to light materials older still.

The time has not yet come to draw any general conclusions from the documents thus published. As M. Barth observes,—"Comme il arrive souvent en pareille matière, la préface ne pourra venir ici qu'à la fin du livre. C'est seulement lorsque la série entière des documents accessibles aura eté publiée, que l'un de nous pourra essayer d'en retracer l'ensemble; de résumer l'histoire, hier inconnue, qu'ils nous révèlent; d'en coordonner les données parfois si instructives par le jour qu'elles jettent sur le developpement social, religieux et litteraire, non-seulement de ces contrées lointaines, mais aussi de l'Inde propre; d'apprécier enfin l'étendue et la force de pénétration de cette vieille culture hindoue que, naguère encore on soupçonnait à peine, et qui, pourtant, était ancienne déjà à l'époque de nos premières inscriptions, puisqu'on peut en suivre la trace jusque chez Ptolémée."

But a few special points in them may be noticed. The Indian inscriptions in Cambodia are as full of rhetoric, and generally as devoid of direct and precise information, as those in India proper. They are most of them written to commemorate the erection of a temple, or of a *linga*, or some religious donation; and expatiate on the greatness of Siva, or on the virtues of the king or his

ministers. They at least show us that, as early as the seventh century, the whole religious and philosophical system of classical India, and all its rhetoric and literary habits were naturalised in Cambodia. They show also that Śaivas, Vaishṇavas, and Buddhists lived then side by side, and in some sort of promiscuity; though Buddhism has now superseded its two Brâhmanical counterparts in Cambodia, as it has been superseded by them in India. Here and there we find some particular and precise detail, which throws an unexpected ray of light on literature or history. Everybody, for instance, knows how difficult it has been to find any testimony of undoubted antiquity about the **Râmâyaṇa** and the **Mahabhârata**. But here we have (p. 30) a fragment of an inscription of the beginning of the seventh century, which informs us that, as early as that time, both epics were considered sacred on the border of distant Laos, and records that king Somaśarman presented a temple with copies of the *Râmâyaṇa*, of the *Purâṇas*, and *the Bhârata complete*, and had them recited every day. Here is an authentic and well-dated counterpart to the mention, in the *Kâdambari*, of the public recitation of the *Mahâbhârata* in temples (ed. Peterson, p. 61): "qui peut prévoir les surprises de ce genre que nous réserve encore l'avenir, quand le sol qui recouvre cette vieille culture aura été mieux fouillé, non-seulement là où en fut le centre, mais aux extrémités, dans toutes les contrées où s'est répandu l'Hindouisme, et qui en ont parfois, mieux que la mère patrie, conservé les vestiges."

Historical inscriptions, also, are not quite wanting. A long inscription at Prea Ngouk (p. 140 ff.) recites the victories of the *Senâpati* Saṃgrâma during the Saka years 973-988, in his wars against Aravindahrada, Kamvau, and Slvat,—the first of whom appears to have been the king of Champâ. The account of these wars is given in a thoroughly epic style, which makes the passage quite unique in Sanskrit epigraphy.

The mention of that mysterious kingdom of **Champâ**, which was hitherto known only from Chinese records and the writings of Marco Polo, occurs frequently in these inscriptions; and lately M. Bergaigne has found in one of them a mention of the very king who reigned in the time of the Venetian traveller *Śrî-Jaya-Siṃhavarmadeva*, called in the Chinese Annals *Che-li-Tse-ya Sin-ho-pa-la-ma Ch'i-thi-wa* (*Comptes rendus*, 1885, page 357).

Champâ, as well as Cambodia, fell into the circle of Indian influences, and should also yield a rich harvest of Sanskrit inscriptions. Her epigraphy is bilingual, like Cambodia's. And, as the old vernacular of Cambodia is represented to this day by the modern Khmer, so the old vernacular of Champâ is represented by the so-called Cham dialect, spoken by a few thousands, the last remnants of the Champâ people. The vernacular epigraphy of Cambodia has not yet attracted as many workmen as it ought: and Captain Aymonier, whose services to science it is impossible to overvalue, is left alone. However, he has already been able to explain a few old inscriptions through the modern Khmèr. He has now gone back as French resident in Binh Thuan, the very core of the old Champâ kingdom; and though the political circumstances of the country are not likely to leave him much time to pursue his scientific researches, we may be sure that the epigraphical survey of Champâ, which was one of the points on his programme, will be done in the same thorough way in which he has treated Cambodia and Laos.

CONTES TJAMES: par A. LANDES. Saigon, Collège des Interprètes, 1886: pp. 17, xi, 356, 67, 238 in 8 vo.

The **Chams** are the old inhabitants of **Champâ**. Their primitive name, as found out by M. Bergaigne in the old Sanskṛit inscriptions from Champâ, was **Chama**, which the Hindu invaders, in their usual way, Sanskṛitized into Champâ, a familiar name in their own geographical nomenclature.[1] The few existing remnants of this people are chiefly to be found in the province of Binh Thuan. It is high time to study their dialect, as it is rapidly dying out before the progressing march of the Cambodian and the Annamite. M. Landes, the director of the Collège des Interprètes at Saigon, a thorough Annamite scholar and one of the best contributors to that valuable magazine for Indo-Chinese knowledge, the *Excursions et Reconnaissances*, is to be deeply thanked for this volume, the first Cham text published to this day. It is a collection of eleven **Cham** tales in the original character, with a transcription of the first tale in Roman characters, and a vocabulary to the whole. M. Landes had these tales from the lips of a few Chams, whom Captain Aymonier had brought back with him to Saigon from his epigraphic mission to Laos and Binh Thuan. The translation will be published in the *Excursions*. On the grammar of the **Cham Language**, the only information available, to this day, is to be found in a short sketch given by Captain Aymonier in 1881, in the *Excursions* (IV 157-186); we understand that he is going to resume it in an *étude d'ensemble* on the Cham dialects.

[1] Séances of the Académie des Inscriptions et Belles Lettres, 1[illegible] July 1887.

THE BAKHSHALI MANUSCRIPT.

BY DR. A. F. RUDOLF HOERNLE.

THE **Bakhshâlî manuscript** was found, as probably the readers of this Journal (*ante*, Vol. XII. p. 89 f.) will recollect, in May 1881, near a village called Bakhshâlî, lying in the Yûsufzâî Subdivision of the Peshâwar District at the extreme North-Western frontier of India.[1] It was dug out by a peasant in a ruined enclosure, where it lay between stones. After the find it was at once forwarded to the Lieutenant-Governor of the Pañjâb who transmitted it to me for examination and eventual publication.

The manuscript is written **in Śâradâ characters** of a rather ancient type, and **on leaves of birch-bark** which from age have become dry like tinder and extremely fragile. Unfortunately, probably through the careless handling of the finder, it is now in an excessively mutilated condition, both with regard to the size and the number of the leaves. Their present size (see Plate[2]) is about 6 by $3\frac{1}{4}$ inches; their original size, however, must have been about 7 by $8\frac{1}{4}$ inches. This might have been presumed from the well-known fact that the old birch-bark manuscripts were always written on leaves of a squarish size. But I was enabled to determine the point by a curious fact. The mutilated leaf which contains a portion of the twenty-seventh *sûtra* shows at top and bottom the remainders of two large square figures, such as are used in writing arithmetical notations. These, when completed, prove that the leaf in its original state must have measured approximately 7 by $8\frac{1}{4}$ inches. The number of the existing leaves is seventy. This can only be a small portion of the whole manuscript. For neither beginning nor end is preserved; nor are some leaves forthcoming which are specifically referred to in the existing fragments.[3] From all appearances, it must have been a large work, perhaps divided into chapters or sections. The existing leaves include only the middle portion of the work or of a division of it. The earliest *sûtra* that I have found is the ninth; the latest is the fifty-seventh. The lateral margins which usually exhibit the numbering of the leaves are broken off. It is thus impossible even to guess what the original number of the leaves may have been.

The leaves of the manuscript, when received by me, were found to be in great confusion. Considering that of each leaf the top and bottom (nearly two-thirds of the whole leaf) are lost, thus destroying their connection with one another, it may be imagined that it was no easy task to read the fragments and arrange them in order. After much trouble I have read and transcribed the whole, and have even succeeded in arranging in consecutive order a not inconsiderable portion of the leaves containing eighteen *sûtras*. The latter portion I have also translated into English.

The beginning and end of the manuscript being lost, both the name of the work and of its author are unknown. The subject of the work, however, is **arithmetic**. It contains a great variety of problems relating to daily life. The following are examples:—"In a carriage, instead of 10 horses, there are yoked 5; the distance traversed by the former was one hundred, how much will the other horses be able to accomplish?" The following is more complicated:—"A certain person travels 5 *yôjanas* on the first day, and 3 more on each succeeding day; another who travels 7 *yôjanas* on each day, has a start of 5 days; in what time will they meet?" The following is still more complicated:—"Of 3 merchants the first possesses 7 horses, the second 9 ponies, the third 10 camels; each of them gives away 3 animals to be equally distributed among themselves, the result is that the value of their respective properties becomes equal; how much was the value of each merchant's original property, and what was the value of each animal?" The method prescribed in the rules for the solution of these problems is extremely mechanical, and reduces the labour of thinking to a minimum. For example, the last mentioned problem is solved thus:—"Subtract the gift (3) severally from the original quantities (7, 9, 10). Multiply

---

[1] See *Proceedings* of the Asiatic Society of Bengal, for 1882, p. 108.

[2] A transcript and explanation of this plate will be found in note 6, on p. 47, at the end of this article.

[3] Thus at the end of the 10th *sûtra*, instead of the usual explanation, there is the following note: *Sesham sûtram dvitîya-patrê vivaritâsti.* The second leaf here referred to is not preserved.

the remainders (4, 6, 7) among themselves (168, 168, 168). Divide each of these products by the corresponding remainder $\left(\frac{168}{4}, \frac{168}{6}, \frac{168}{7}\right)$. The results (42, 28, 24) are the values of the 3 classes of animals. Being multiplied with the numbers of the animals originally possessed by the merchants (42×7; 28×9, 24×10), we obtain the values of their original properties (294, 252, 240). The value of the property of each merchant after the gift is equal (262, 262, 262)." The rules are expressed in very concise language, but are fully explained by means of examples. Generally there are two examples to each rule (or *sûtra*), but sometimes there are many; the twenty-fifth *sûtra* has no less than fifteen examples. The rules and examples are written in verse; the explanations, solutions, and all the rest are in prose. The metre used is the *ślôka*.

The subject-matter is divided in *sûtras*. In each *sûtra* the matter is arranged as follows: First comes the rule, and then the example introduced by the word *udâharaṇa*.* Next, the example is repeated in the form of a notation in figures, which is called *sthâpana*. This is followed by the solution which is called *karaṇa*. Finally comes the proof, called *pratyaya*. This arrangement and terminology differ somewhat from those used in the arithmetic of Brahmagupta and Bhâskara. Instead of simply *sûtra*, the latter use the term *karaṇa-sûtra*. The example they call *uddêśaka* or *udâharaṇa*. For *sthâpana* they say *nyâsa*. As a rule they give no full solution or proof, but the mere answer to the problem. Occasionally a solution is given, but it is not called *karaṇa*.

The **system of notation** used in the Bakhshâlî arithmetic is much the same as that employed in the arithmetical works of **Brahmagupta** and **Bhâskara**.[5] There is, however, a very important exception. The **sign for the negative** quantity is a cross (+). It looks exactly like our modern sign for the positive quantity, but it is placed after the number which it qualifies. Thus $\frac{12}{1}\ \frac{7+}{1}$ means $12 - 7$ (*i. e.* 5). This is a sign which I have not met with in any other Indian arithmetic, nor, so far as I have been able to ascertain, is it now known in India at all. The sign now used is a dot placed over the number to which it refers. Here, therefore, there appears to be a mark of great antiquity. As to its **origin** I am unable to suggest any satisfactory explanation. I have been informed by Dr. Thibaut of Benares, that Diophantos in his Greek arithmetic uses the letter ψ (short for ἔλλειψις) reversed (thus ⋔) to indicate the negative quantity. There is undoubtedly a slight resemblance between the two signs; but considering that the Hindus did not get their elements of the arithmetical science from the Greeks, a native Indian origin of the negative sign seems more probable. It is not uncommon in Indian arithmetic to indicate a particular factum by the initial syllable of a word of that import subjoined to the terms which compose it. Thus addition may be indicated by *yu* (short for *yuta*), *e. g.*, $\frac{5}{1}\ \frac{7}{1}$ *yu* means 5 + 7 (*i. e.* 12). In the case of substraction or the negative quantity, *ṛiṇa* would be the indicatory word and *ṛi* the indicatory syllable. The difficulty is to explain the connection between the letter *ṛi* (ऋ) and the symbol + The latter very closely resembles the letter *k* (क) in its ancient shape (+) as used in the Aśôka alphabet. The only plausible suggestion I can make is, that it is the abbreviation (*ka*) of the word *kanita* 'diminished,' from the root *kanaya*, with which the well-known words *kanîyas*, 'younger' *kanishtha* 'youngest,' *kanyâ* 'maiden,' '*kana* or *kaṇa* 'a small piece,' etc., are connected. It is true the occurrence of the participle *kanita*, as far as I am aware, is not authenticated in the existing Sanskrit literature. But it would be a regular formation, and might have been in use in the old North-Western Prâkṛit of the Buddhists or Jains (see below) Another suggestion is, that the sign represents the syllable *nû* (Prâkrit for *nyû*), an abbreviation of *nyûna*, 'diminished.' The *akshara* for *nû* (or *nu*) in the Aśôka characters would very closely resemble a cross (+). The difficulty about these and similar suggestions is to account for the retention of an obsolete graphic symbol in the case of the negative sign only. If the sign is really the old symbol for *ka*, its retention

* This word is almost uniformly abbreviated *udâ*. Owing to the graphic symbols for *u* and *ta* being indistinguishable, I at first took the word to be complete and read it *tdâ*. But quite lately I found on a fragment, which had hitherto escaped my notice, the word written in full *udâharaṇa*.

[5] See Colebrooke's *Dissertation on the Algebra of the Hindus*, in his *Essays*, Vol II pp. 387 ff

might perhaps be explained by the fact, that, in its transfer to the Sâradâ alphabet, the letter *ka* has suffered less change of form than many others of the old Aśôka characters. However, for the present, the question must be left an open one.

A whole number, when it occurs in an arithmetical operation, as may be seen from the above given examples, is indicated by placing the number 1 under it. This, however, is a practice which is still occasionally observed in India. It may be worth noting that the number 1 is always designated by the word *rûpa* :[6] thus *sarûpa* or *rûpâdhika* 'adding one,' *rûpôna* 'deducting one.' The only other instance of the use of a symbolic numeral word is the word *rasa* for 'six,' which occurs once in an example in the fifty-third *sûtra*.

The following statement, from the first example of the twenty-fifth *sûtra*, affords a good example of the system of notation employed in the Bakhshâlî arithmetic :—

$$\left|\begin{array}{cccc} \bullet & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 \\ & 3+ & 3+ & 3+ \end{array}\ \textit{bhá}\ 32\ \right|\ \textit{phalaṁ}\ 108$$

Here the initial dot is used very much in the same way as we use the letter x to denote the unknown quantity the value of which is sought. The number 1 under the dot is the sign of the whole (in this case, unknown) number. A fraction is denoted by placing one number under the other without any line of separation; thus $\begin{smallmatrix}1\\3\end{smallmatrix}$ is $\frac{1}{3}$, *i. e.* one-third. A mixed number is shown by placing the three numbers under one another: thus $\begin{smallmatrix}1\\1\\3\end{smallmatrix}$ is $1 + \frac{1}{3}$ or $1\frac{1}{3}$, *i. e.* one and one-third. Hence $\begin{smallmatrix}1\\1\\3+\end{smallmatrix}$ means $1 - \frac{1}{3}$ (*i. e.* $\frac{2}{3}$). Multiplication is usually indicated by placing the numbers side by side; thus

$$\begin{array}{cc} 5 & 32 \\ 8 & 1 \end{array}\Big|\ \textit{phalaṁ}\ 20,$$

means $\frac{5}{8} \times 32 = 20$. Similarly $\begin{smallmatrix}1&1&1\\1&1&1\\3+&3+&3+\end{smallmatrix}$ means $\frac{2}{3} \times \frac{2}{3} \times \frac{2}{3}$ or $(\frac{2}{3})^3$, *i. e.* $\frac{8}{27}$. *Bhá* is an abbreviation of *bhâga*, 'part,' and means that the number preceding it is to be treated as a denominator. Hence $\begin{smallmatrix}1&1&1\\1&1&1\\3+&3+&3+\end{smallmatrix}$ *bhá* means $1 \cdot \frac{8}{27}$ or $\frac{27}{8}$. The whole statement, therefore

$$\left|\begin{array}{cccc} \bullet & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 \\ & 3+ & 3+ & 3+ \end{array}\ \textit{bhá}\ 32\ \right|\ \textit{phalaṁ}\ 108$$

means $\frac{27}{8} \times 32 = 108$, and may be thus explained,—"a certain number is found by dividing with $\frac{8}{27}$ and multiplying with 32: that number is 108."

The dot is also used for another purpose, namely as one of the ten fundamental figures of the decimal system of notation, or the zero (0 1 2 3 4 5 6 7 8 9). It is still so used in India for both purposes, to indicate the unknown quantity as well as the naught. With us the dot, or rather its substitute the circle (0), has only retained the latter of its two intents, being simply the zero figure, or the 'mark of position' in the decimal system. The Indian usage, however, seems to show how the zero arose, and that it arose in India. The Indian dot, unlike our modern zero, is not properly a numerical figure at all. It is simply a sign to indicate an empty place or a hiatus. This is clearly shown by its name *śûnya* 'empty.' The empty place in an arithmetical statement might or might not be capable of being filled up, according to circumstances. Occurring in a row of figures arranged decimally or according to the 'value of position,' the empty place could not be filled up, and the dot therefore signified 'naught,' or stood in the place of the zero. Thus the two figures 3 and 7, placed in juxtaposition (37) mean 'thirty-seven,' but with an 'empty space' interposed between them (3 7), they mean 'three hundred and seven.' To prevent misunderstanding the presence of the 'empty space' was indicated by a dot (3 • 7); or by what is now the zero (307). On the other hand, occurring in the statement of a problem, the 'empty place' could be filled up, and here the dot which marked its presence, signified a 'something' which was to be discovered and to be put in the empty place. In the course of time, and out of India, the latter signification of the dot was discarded; and the dot thus became simply the sign for 'naught' or the zero, and assumed the value of a proper figure of the decimal system of notation, being the 'mark of position.' In its double signification, which

---

[6] This word was at first read by me *ûpa*. The reading *rûpa* was suggested to me by Professor A. Weber of Berlin and it is, I have now no doubt, the correct one.

still survives in India, we can still discern an indication of that country as its birthplace.

Generally speaking, the terms of an operation are set down side by side: and the particular operation intended is indicated by the initial syllable of a word of that import, subjoined to the terms which compose it. The operation of multiplication alone is not indicated by any special sign. Addition is indicated by *yu* (for *yuta*), subtraction by + (*ka* for *kanita* ?) and division by *bhâ* (for *bhâga*). The whole operation is commonly enclosed between lines (or sometimes double lines), and the result is set down outside, introduced by *pha* (for *phala*). Occasionally the indicatory word is written in full. Vertical lines are usually interposed between the terms of a proportion or a progression. Thus :—

$$\left|\begin{matrix}5 & 7\\ 1 & 1\end{matrix}\ yu\right|\ pha\ 12 \quad \text{means } 5 + 7 = 12$$

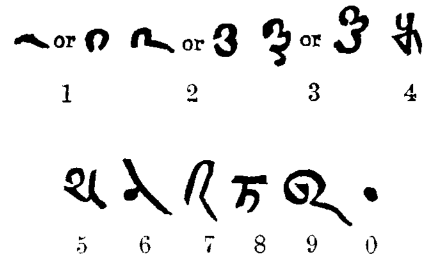
$$\left|\begin{matrix}12 & 7\\ 1 & 1\end{matrix}\ +\right|\ pha\ 5 \quad ,,\ 12 - 7 = 5$$

$$\left|\begin{matrix}5 & 32\\ 8 & 1\end{matrix}\right|\ pha\ 20 \quad ,,\ \tfrac{5}{8} \times 32 = 20$$

$$\left|\begin{matrix} & 1 & 1 & 1\\ \dot{1} & 1 & 1 & 1\\ & 3+ & 3+ & 3+\end{matrix}\ bh\hat{a}\ 32\right|\ pha\ 108\ ,,\ (1 : \tfrac{8}{27}) \times 32 = 108$$

$$\left|\begin{matrix}10\\1\end{matrix}\right|\begin{matrix}30\\1\end{matrix}\left|\begin{matrix}4\\1\end{matrix}\right|\ pha\ \begin{matrix}12\\1\end{matrix} \quad ,,\ 10 : 30 = 4 : 12$$

Regarding **the age of the manuscript,** I am unable to offer a very definite opinion. The composition of a Hindu work on arithmetic, such as that contained in the Bakhshâlî MS., seems necessarily to presuppose a country and a period in which Hindu civilisation and Brâhmaṇical learning flourished. Now the country in which Bakhshâlî lies and which formed part of the Hindu kingdom of Kâbul, was early lost to Hindu civilisation through the conquests of the Muḥammadan rulers of Ghaznî, and especially through the celebrated expeditions of Maḥmûd, towards the end of the 10th and the beginning of the 11th centuries A. D. In those troublous times it was a common practice for the learned Hindus to bury their manuscript treasures. Possibly the Bakhshâlî MS. may be one of these. In any case it cannot well be placed much later than the 10th century A D. It is quite possible that it may be somewhat older. The Śâradâ characters used in it, exhibit in several respects a rather archaic type, and afford some ground for thinking that the manuscript may perhaps go back to the 8th or 9th century. But in the present state of our epigraphical knowledge, arguments of this kind are always somewhat hazardous. The usual form in which the numeral figures occur in the manuscript are the following :—



Quite distinct from the question of the age of the manuscript, is that of **the age of the work** contained in it. There is every reason to believe that the Bakhshâlî arithmetic is of a very considerably earlier date than the manuscript in which it has come down to us. I am disposed to believe that the composition of the former must be referred to the earliest centuries of our era, and that it may date from the 3rd or 4th century A.D. The arguments making for this conclusion are briefly the following :—

In the first place, it appears that the earliest mathematical works of the Hindus were written in the *ślôka* measure ;[7]) but from about the end of the 5th century A.D. it became the fashion to use the *âryâ* measure. Âryabhaṭa *c.* 500 A.D., Varâhamihira *c.* 550, Brahmagupta *c.* 630, all wrote in the latter measure. Not only were new works written in it, but also *ślôka*-works were revised and recast in it. Now the Bakhshâlî arithmetic is written in the *ślôka* measure; and this circumstance carries its composition back to a time anterior to that change of literary fashion in the 5th century A. D.

In the second place the Bakhshâlî arithmetic is written in that peculiar language which used to be called **the Gâthâ dialect,** but which is rather the literary form of the ancient North-Western Prâkṛit (or Pâli). It exhibits a strange mixture of what we should now call Sanskṛit and Prâkṛit forms. As shown by the inscriptions (*e.g.* of the Indo-Scythian kings in Mathurâ) of that period, it appears to have been in general use, in North-Western India, for literary purposes till about the end of the

[7] See Professor Kern's Introduction to the *Bṛhat Saṃhitâ* of Varâhamihira.

3rd century A. D., when the proper Sanskrit, hitherto the language of the Brâhmanic schools, gradually came into general use also for secular compositions. The older literary language may have lingered on some time longer among the Buddhists and Jains, but this would only have been so in the case of religious, not of secular, compositions. Its use, therefore, in the Bakhshâlî arithmetic points to a date not later than the 3rd or 4th century A. D. for the composition of that work.

In the third place, in several examples, the two words *dînâra* and *dramma* occur as denominations of money. These words are the Indian forms of the Latin *denarius* and the Greek *drakhmé*. The former, as current in India, was a gold coin, the latter a silver coin. Golden *denarii* were first coined at Rome in B. C. 207. The Indian gold pieces, corresponding in weight to the Roman gold *denarius*, were those coined by the Indo-Scythian kings, whose line, beginning with Kadphises, about the middle of the 1st century B. C., probably extended to about the end of the 3rd century A.D. Roman gold *denarii* themselves, as shown by the numerous finds, were by no means uncommon in India, in the earliest centuries of our era. The gold *dînâras* most numerously found are those of the Indo-Scythian kings Kanishka and Huvishka, and of the Roman emperors Trajan, Hadrian and Antoninus Pius, all of whom reigned in the 2nd century A.D. The way in which the two terms are used in the Bakhshâlî arithmetic seems to indicate that the gold *dînâra* and the silver *dramma* formed the ordinary currency of the day. This circumstance again points to some time within the three first centuries of the Christian era as the date of its composition.

A fourth point, also indicative of antiquity, which I have already adverted to, is the peculiar use of the cross (+) as the sign of the negative quantity.

There is another point which may be worth mentioning, though I do not know whether it may help in determining the probable date of the work. The year is reckoned in the Bakhshâlî arithmetic as consisting of 360 days. Thus in one place the following calculation is given :—"If in $\frac{800}{727}$ of a year, $2982\frac{486}{727}$ is spent, how much is spent in one day ?" Here it is explained that the lower denomination (*adha-chchheda*) is 360 days, and the result (*phala*) is given as $\frac{1807}{240}$ (*i.e.* $\frac{2168400}{727 \cdot 800} \cdot \frac{727}{360}$).

In connection with this question of the age of the Bakhshâlî work, I may note a circumstance which appears to point to **a peculiar connection of it with the Brahma-Siddhânta of Brahmagupta.** There is a curious resemblance between the fiftieth *sûtra* of the Bakhshâlî arithmetic, or rather with the algebraical example occurring in that *sûtra*, and the forty-ninth *sûtra* of the chapter on algebra in the *Brahma-Siddhânta*. In that *sûtra*, Brahmagupta first quotes a rule in prose, and then adds another version of it in the *âryâ* measure. Unfortunately the rule is not preserved in the Bakhshâlî MS., but, as in the case of all other rules, it would have been in the form of a *ślôka* and in the North-Western Prakrit (or 'Gâthâ dialect'). Brahmagupta in quoting it, would naturally put it in what he considered correct Sanskrit prose, and would then give his own version of it in his favourite *âryâ* measure.[8] I believe it is generally admitted that Indian arithmetic and algebra, at least, are of entirely native origin. While *Siddhânta*-writers, like Brahmagupta and his predecessor Âryabhaṭa, might have borrowed their astronomical elements from the Greeks or from books founded themselves on Greek science, they took their arithmetic from native Indian sources. Of the Jains it is well known that they possess astronomical books of a very ancient type, showing no traces of western or Greek influence. In India arithmetic and algebra are usually treated as portions of works on astronomy. In any case it is impossible that the Jains should not have possessed their own treatises on arithmetic, when they possessed such on astronomy. The early Buddhists, too, are known to have been proficients in mathematics. The prevalence of Buddhism in North-Western India, in the early centuries of our era, is a well-known fact. That in those early times there were also large Jain communities in those regions, is testified by the remnants of Jain sculpture found near Mathurâ and elsewhere. From the fact of

[8] See note **4** at the end of this article, also note 5.

the general use of the North-Western Prâkṛit (or the 'Gâthâ dialect') for literary purposes among the early Buddhists it may reasonably be concluded that its use prevailed also among the Jains, between whom and the Buddhists there was so much similarity of manners and customs. There is also a diffusedness in the mode of composition of the Bakhshâlî work which reminds one of the similar characteristic observed in Buddhist and Jain literature. All these circumstances put together seem to render it probable that in the Bakhshâlî MS. there has been preserved to us a fragment of an early Buddhist or Jain work on arithmetic (perhaps a portion of a larger work on astronomy), which may have been one of the sources from which the later Indian astronomers took their arithmetical information. These earlier sources, as we know, were written in the *ślôka* measure, and when they belonged to the Buddhist or Jain literature, must have been composed in the ancient North-Western Prâkṛit. Both these points are characteristics of the Bakhshâlî work. I may add that one of the reasons why the earlier works were, as we are told by tradition, revised and re-written in the *âryâ* measure by later writers such as Brahmagupta, may have been that in their time the literary form ('Gâthâ dialect') of the North-Western Prâkṛit had come to be looked upon as a barbarous and ungrammatical jargon as compared with their own classical Sanskṛit. In any case the Buddhist or Jain character of the Bakhshâlî arithmetic would be a further mark of its high antiquity.

Throughout the Bakhshâlî arithmetic the **decimal system of notation** is employed. This system rests on the principle of the 'value of position' of the numbers. It is certain that this principle was known in India as early as A. D. 500. There is no good reason why it should not have been discovered there considerably earlier. In fact, if the antiquity of the Bakhshâlî arithmetic be admitted on other grounds, it affords evidence of an earlier date of the discovery of that principle. As regards the zero, in its modern sense of a 'mark of position' and one of the ten fundamental figures of the decimal system (0 1 2 3 4 5 6 7 8 9), its discovery, or rather its elaboration, is undoubtedly much later than the discovery of the 'value of position.' It is quite certain, however that the application of the latter principle to numbers, in ordinary writing, would have been nearly impossible without the employment of some kind of 'mark of position,' or some mark to indicate the 'empty place' (*śûnya*). Thus the figure 7 may mean either 'seven' or 'seventy' or 'seven hundred,' according as it be or be not supposed to be preceded by one (7 • or 70) or two (7 • • or 700) 'empty places.' Unless the presence of these 'empty places' or the 'position' of the figure 7 be indicated, it would be impossible to read its 'value' correctly. Now what the Indians did, and indeed still do, was simply to use for this purpose the sign which they were in the habit of using for the purpose of indicating *any* empty place or omission whatsoever in a written composition: that is the dot. It seems obvious from the exigencies of writing that the use of the well-known dot as the mark of an empty place must have suggested itself to the Indians as soon as they began to employ their discovery of the principle of the 'value of position' in ordinary writing. In India the use of the dot as a substitute for the zero must have long preceded the discovery of the proper zero, and must have been contemporaneous with the discovery of the principle of the 'value of position.' There is nothing in the Bakhshâlî arithmetic to show that the dot is used as a proper zero, and that it is anything more than the ordinary 'mark of an empty place.' The employment, therefore, of the decimal system of notation such as it is, in the Bakhshâlî arithmetic, is quite consistent with the suggested antiquity of it.

I have already stated that the Bakhshâlî arithmetic is **written in the so-called Gâthâ dialect** or in that literary form of the North-Western Prâkṛit which preceded the employment, in secular composition, of the classical Sanskṛit. Its literary form consisted in what may be called (from the Sanskṛit point of view), an imperfect sanskritisation of the vernacular Prâkṛit. Hence it exhibits at every turn the peculiar characteristics of the underlying vernacular. The following are some specimens of orthographical peculiarities :—

Insertion of euphonic consonants: of *m*, in *êka-m-êkatraṁ*, *bhâitakô-m-êkapaṇḍitah*; of *r*, in *tri-r-asîti*, *labhatê-r-ashtau*.

Insertion of *s*, in *vibhaktaṁ-s-uttarê*, *kshiyatê*.

s-traya. This is a peculiarity not known to me elsewhere, either in Prâkrit or in Pâli.

Doubling of consonants: in compounds, *prathama-d-dhântê, êka-s-saṁkhyá*; in sentences *yadi-sh-shaḍbhi, êtê-s-samadhaná.*

Peculiar spellings: *triṅśá* or *triṅsa* for *triṁśat.* The spelling with the guttural nasal before *ś* occurs only in this word; not otherwise, e. g. *chatválimśa* 40. Again *ṛi* for *ri* in *tṛiliné, kṛiyatê, vimiśritaṁ, kriṇáti*; and *ri* for *ṛi* in *rinaṁ, drishṭaḥ.* Again *katthyatáṁ* for *kathyatáṁ.* Again the *jihvámúliya* and the *upadhmániya* are always used before gutturals and palatals respectively.

Irregular sandhi: *kô sô rá°* for *kaḥ sa rá,°* *dvayô kêchi* for *dvayaḥ k°, dvayô cha* for *dvayaś cha, dvibhi kri°* for *dvibhiḥ kri°, ádyô vi°* for *ádyôr vi°, vivaritásti* for *vivaritam asti.*

Confusion of the sibilants: *ś* for *sh,* in *śashṭi* 60, *máśakô*; *sh* for *ś,* in *daśáṁsha, vishôdhayêt, shêshaṁ*; *ś* for *s,* in *sáśyaṁ, sáśyatáṁ*; *s* for *sh,* in *ésa* 'this.'

Confusion of *ṇ* and *n*: *utpaṇṇa* for *utpanna*; *kshayêna* for *kshayeṇa* (s. 27); *viṇyastaṁ* for *vinyastaṁ.*

Elision of a final consonant: *bhájayê, kêchi,* for *bhájayêt, kêchit.*

Interpolation of *r*: *hrîṇaṁ* for *hînaṁ.*

The following are specimens of etymological and syntactical peculiarities:—

Absence of inflection: nom. sing. masc., *êsa sá ráśi* for *ráśiḥ* (s. 50), *yaváṁ viśésha kartavyaṁ* for *viśêshaḥ* (s. 51); nom. plur., *sêrya santi* for *sêryáh* (s. 53); acc. plur., *dinára dattaván* for *dináráṇ* (s. 53).

Peculiar inflection: gen. sing., *gatisya* for *gatêh* (s. 15); parasm. for âtm., *vikriṇáti* for *vikrîṇîté* 'he sells' (s. 54), âtm. for parasm., *arjayaté* for *arjayati* 'he earns' (s. 53).

Change of gender: masc. for neut., *múlá* for *múláni* (s. 55); neut. for masc., *vargaṁ* for *vargaḥ* (s. 50); neut. for fem., *yutiṁ cha kartavyá* for *yutiś* (s. 50).

Exchange of numbers: plur. for sing., *(bharêt) lábháḥ* for *lábhaḥ* (s. 54).

Exchange of cases: acc for nom., *dvitiyaṁ arjayaté bhdhaḥ* for *dvitiyaḥ* (s. 53), acc. for instr., *kshayaṁ saṁguṇya* for *kshayêṇa* (s. 27); acc. for loc., *kiṁ kálaṁ* for *kasmin kálé* (s. 52): instr. for loc., *anéna káléna* for *asmin kálé* (s. 53); instr. for nom., *prathaména dattaván* for *prathamô* (s. 53), or *ékéna yáti* for *ékô* (s. 15); loc. for instr., *prathamé dattá* for *prathamêna* (s. 53), or *mánavé grihítaṁ* for *mánavêna* (s. 57): gen. for dat., *dvitiyasya dattá* for *dvitiyáya* (s. 53).

Abnormal concord: incongruent cases, *ayaṁ prashṭé* for *asmin* (s. 52): incongruent numbers, *ésa lábháḥ* for *lábhaḥ* (s. 54), *rájaputró kéchi* for *rájaputráḥ* (s. 53); incongruent genders, *sá kálaṁ* for *tat kálaṁ* (s. 52), *viśésha kartavyaṁ* for *kartavyaḥ* (s. 51), *sá ráśiḥ* for *sa* (s. 50), *káryaṁ sthitaḥ* for *sthitaṁ* (s. 14).

Peculiar forms: *nivarita* for *nivṛita*, *rája* for *añjana*, *divaddha* 'one and one-half,' *chatválimśa* 40, *paṁchâśama* 50th, *chaupaṁchâśama* 54th, *chaturâśiti* 84, *tri-r-áśiti* 83, *piṇyasê* (v. l. *viṇyasê*) for *apinyasêt*, *bhájayéta* 'let it be divided' for *bhájyêta* (s. 27).

Peculiar meanings: *yadṛichchhá*, or *kámikaṁ* for the 'number one,' when representing the unknown quantity of which the value is sought.

The following extracts may serve as **specimens of the text**:—

TEXT.

18th Sûtra.

Âdyôr viśêshadviguṇaṁ chayaśuddhivibhâjitaṁ |
Rûpâdhikaṁ *tathá kál*aṁ gatisâsyaṁ tadâ bhavêt ||

Udâ ||

Dvayâditṛichayaś chaiva dvi*chayatryá*dikôttaraḥ |
Dvayô cha bhavatê paṁthâ kêna kâlêna śâsyatâṁ ||

sthâpanaṁ kṛiyatê | *êsháṁ* | â $\frac{2}{1}$ | u $\frac{3}{1}$ | pa $\frac{1}{}$ |

dvi | â $\frac{3}{1}$ | u $\frac{2}{1}$ | pa $\frac{\bullet}{1}$ | karaṇaṁ || âdyôr viśêsha

. . . .

. . . . tâ dvi 2 . . . .

Udâ ||

. . . . |

. . . . ||

| â $\frac{5}{1}$ | u $\frac{6}{1}$ | pa $\frac{\bullet}{1}$ | dha $\frac{\bullet}{1}$ |
| â $\frac{10}{1}$ | u $\frac{3}{1}$ | pa $\frac{\bullet}{1}$ | dha $\frac{\bullet}{1}$ |

karaṇaṁ | âdyôr viśesham âdi 5 | 10 *viśésha* 5 | chayaśuddhi chayaṁ 6 | 3 śuddhi 3 âdiś sha 5 dviguṇaṁ 10 uttaraviśêsha 3 vibhaktaṁ $\frac{10}{3}$ sarûpaṁ $\frac{13}{3}$ êsha palaṁ anêna kâl*êna* samadhanâ bhavanti ||

pratyayaṁ ‖ rûpôṇakaraṇêna phalaṁ | $\frac{65}{\text{dvi } 65}$ |

Ashṭhâdaśamasûtraṁ 18 ‖ + ‖

27th Sûtra.

Idânîṁ suvarṇakshayaṁ vakshyâmi yasyêdaṁ sûtraṁ ।

> Kshayaṁ saṁguṇya kanakâs tadyutir-b-bhâjayêt tataḥ ।
> Saṁyutair êva kanakair êkaikasya kshayô hi saḥ ‖

Udâ ‖

> *Êkadvitrichatus*saṁkhyasuvarṇâ mâshakai riṇai ।
> Êkadvitrichatussaṁkh*yai* rahita[9] samabhâgatâṁ ‖

sthâpanaṁ kriyatê । êshâṁ $\frac{1-}{1}$ $\frac{2+}{2}$ $\frac{3+}{3}$ $\frac{4+}{4}$

karaṇaṁ ‖ kshayaṁ saṁguṇya kanakâdibhi kshayêna saṁguṇya jâtaṁ | 1 | 4 | 9 | 16 | *tadyuti* । êsha yuti 30 kanakâ yuti 10 anêna bhaktvâ labdhaṁ

$\frac{10}{1}$	$\frac{30}{1}$	$\frac{1}{1}$	*pha mâśê*	$\frac{3}{1}$
$\frac{10}{1}$	$\frac{30}{1}$	$\frac{2}{1}$	*pha mâśê*	$\frac{6}{1}$
$\frac{10}{1}$	$\frac{30}{1}$	$\frac{3}{1}$	*pha mâśê*	$\frac{9}{1}$
$\frac{10}{1}$	$\frac{30}{1}$	$\frac{4}{1}$	pha mâś	$\frac{12}{1}$

Udâ ‖

> Êkadvitri*chatussaṁkhya*suvarṇa prôjjhitâ imê ।
> Mâśakâ dvitritâṁ chaiva chatuḥpaṁchakarâṁśakaṁ[10] kiṁ kshayaṁ ‖

$\frac{1}{1}$ $\frac{2}{1}$ $\frac{3}{1}$ $\frac{4}{1}$ / $\frac{2}{}$ $\frac{3}{}$ $\frac{4}{}$ $\frac{5}{}$ karaṇaṁ । kshayaṁ saṁguṇya kanakâ êsha sthâpyatê $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{4}{5}$ -s-tadyutir-b-bhâjayêta[11] tataḥ harasâsyê kritê yutaṁ $\frac{163}{60}$ | saṁyutaiḥ kanakair bhaktvâ tadâ kanakâ 10 anêna bhaktaṁ jâtaṁ $\frac{163}{600}$ êśa êkaikasuvarṇasya kshayaṁ ‖ *pratyayaṁ trairâśik* na kartavya ‖

$\frac{10}{1}$	$\frac{163}{60}$	$\frac{1}{1}$	*pha*	$\frac{163}{600}$
$\frac{10}{1}$	$\frac{163}{60}$	$\frac{2}{1}$	*pha*	$\frac{163}{300}$
$\frac{10}{1}$	$\frac{163}{60}$	$\frac{3}{1}$	*pha*	$\frac{163}{200}$
$\frac{10}{1}$	$\frac{163}{60}$	$\frac{4}{1}$	pha	$\frac{163}{150}$

Udâ ‖

> . . . . ।
> . . . . śruṇuśva mê ‖
> Kramêṇa dvaya mâshâdi uttarê êkahînatâṁ ।
> Suvarṇaṁ mê *tu* sammiśrya katthyatâṁ gaṇakôttama ‖

sthâpanaṁ $\frac{4+}{5}$ $\frac{5+}{6}$ $\frac{6-}{7}$ $\frac{7-}{8}$ $\frac{8+}{9}$ $\frac{9+}{10}$ $\frac{1+}{2}$ $\frac{2+}{3}$ $\frac{3+}{4}$

kshayaṁ saṁguṇya jâtaṁ 20 । 30 । 42 । 56 । 72 । 90 । 2 । 6 ।[12]) êshâṁ yuti 330 kana*kâ*nâṁ yuti 45 । anêna bhaktvâ labdhaṁ $\frac{330}{45}$ paṁchadaśabhâgê-ś-chhêda kriyatê । phalaṁ | 7 śê $\frac{1}{3}$ êśa êkaikamâśakakshayaṁ । pratyaya trairâśikêna | $\frac{45}{1}$ | $\frac{330}{1}$ | $\frac{1}{1}$ | phalaṁ $\frac{22}{3}$ êvaṁ sarvêshâṁ pratyayô *kartavya* ‖

Saptaviṁśatimasûtraṁ 27 ‖ + ‖

50th Sûtra.

> *Yutahînaṁ cha-m-êkatvaṁ* . . . . ।
> . . . . *hînê yutîṁ cha kartavyâ*[13] ‖

Udâ ‖

> Kô râśi paṁchayutâ mû*lada*ḥ sâ râśis saptahî*na* mûlada ।
> Kô sô râśir iti prashṭaḥ[14] ‖

• $\frac{5}{1}$ $\frac{}{1}$ yu mû • $\frac{}{1}$ sâ • $\frac{}{1}$ $\frac{7+}{1}$ mû • $\frac{}{1}$ *karaṇaṁ* । yutahînaṁ cha-m-êkatvaṁ 12 | tad*dalaṁ* | 6 dvihrinaṁ | 4 dalaṁ | 2 | vargaṁ 4 hînê yutiṁ cha kartavyâ | *hînaṁ* 7 anêna yuti | 11 | êśa sâ râśi ‖ asya pratyânayanaṁ *kriyatê* | $\frac{11}{1}$ yu $\frac{5}{1}$ mû $\frac{4}{1}$ $\frac{11}{1}$ $\frac{7+}{1}$ mû $\frac{2}{1}$ Paṁchâśamasûtraṁ ‖ +

---

[9] The two first letters (*rahi*) are uncertain, owing to a defect in the texture of the leaf.

[10] Read *chatuḥpaṁchâṁśakam kiṁ kshayam*, metri causâ.

[11] Read *bhâjayêta*.

[12] Here, 12 is omitted in the MS., by mistake.

[13] These fragments of the sûtra have been restored from what appear to be quotations in the solution.

[14] There seems to be some confusion about this example. The first line as it stands does not scan; moreover instead of *kô râśi* it should be *yô râśi*. The second half-line does scan; but the words *iti prashṭaḥ* seem out of place as a portion of the verse. Now if we omit *iti prashṭaḥ* from the verse, the remainder, with a few slight alterations, reads as a correct verse of one line and a half, though in utter disregard of all cæsura. Thus:—

> Yô râśi paṁchayuta mûladaḥ sâ râśi saptahînê na mûlada kô sô râśir iti prashṭaḥ

Perhaps that disregard accounts for the confusion made by the scribe of the MS.

51st Sûtra.

Gavâṁ viśêsha kartavyaṁ dhanaṁ chaiva puna . . ।

. . . . ॥

53rd Sûtra.

Ahadravyaharâśau ta[15]) tadviśêshaṁ vibh*âja-yêt* ।

Yallabdhaṁ dviguṇaṁ kâlaṁ dattâ samadhanâ prati ॥

Udâ ॥

Tridinê ârjayê paṁcha bhṛitakô-m-êkapaṇḍitaḥ ।

Dvitîyaṁ paṁchadivasê rasam ârjayatê budhaḥ ॥

Prathamêna dvitîyasya sapta dattâni . . taḥ ।

Datvâ samadhanâ jâtâ kena kâlêna katthyatâṁ ॥

$\frac{5}{3}$ rû || $\frac{6}{5}$ rû || *karaṇaṁ* । *ahadravyaviśêshaṁ* harâṁśau tat tadviśêshaṁ . . .

anêna kâlêna samadhanâ bhavanti ॥ pratyaya trairâśikê kriyatê

$\frac{3}{1}$	$\frac{5}{1}$	$\frac{30}{1}$	pha 50
$\frac{5}{1}$	$\frac{6}{1}$	$\frac{30}{1}$	pha 36

prathamê dvitîyasya-s-sapta dattâ । 7 śêshaṁ 43 ॥ 43 । 43 êtê samadhanâ jâtâ ॥

Udâ ॥

*Râ*japutrô dvayô kêchi nṛipati-s-sêvya santi vaiḥ ।

Mêkâsyâhnê dvaya-sh-shaḍbhâgâ[16]) dvitîyasya divarddhakaṁ ॥

Prathamêna dvitîyasya daśa dînâra dattavân ।

Kêna kâlêna samatâṁ gaṇayitvâ vadâśu mê ॥

|| $\frac{13}{6}$ | $\frac{3}{2}$ || dattaṁ $\frac{10}{1}$ || karaṇaṁ ॥ ahadravyaviśêshaṁ cha । tatra . . .

. . . pratyayaṁ trairâśikêna

$\frac{1}{1}$	$\frac{13}{6}$	$\frac{30}{1}$	pha 65
$\frac{1}{1}$	$\frac{3}{2}$	$\frac{30}{1}$	pha 45

prathamêna dvitîyasya 10 dattâ jâtâ । 55 । 55 ॥ samadhanâ jâtâ ॥ Sûtraṁ tripaṁchâśamaḥ sûtraṁ 53 ॥ + ॥

Sûtra.

Udâ ॥

. . . . ।

[15] Read °*harâṁśau tat*.

. dviguṇaṁ dvitîyasya prathamâ . . . . . ॥

Prathamâ chaturguṇaṁ chaiva chaturthê chaiva dattavân ।

Cha . . . . śatam êkaṁ dvayânugaṁ ॥

Vadasva prathamê dattaṁ kiṁ pramâṇaṁ . . sya cha ॥

|| $\frac{\bullet}{1}$ | $\frac{2}{1}$ | $\frac{3}{1}$ || $\frac{4}{1}$ || dṛishya $\frac{200}{1}$ | śûnyam êkayutaṁ kṛitvâ 1 | 2 | 3 | 4 | *praksh*êpayuktyâ phalam || 20 | 40 | 60 | 80 | êvaṁ 200 || êsha *pratyaya* | â $\frac{20}{1}$ | u $\frac{20}{1}$ | pa $\frac{4}{1}$ | rûpôṇakaraṇêna phalaṁ 200 ॥

Sûtra.

Yadṛichchhâ pinyasê śûnyê tadâ vargaṁ *tu kârayêt* ।

. . . . ॥

Udâ ॥

. . . . ।

Tadâ cha triguṇaṁ dattaṁ . . . . ॥

. . . . prathamasya tu kiṁ bhavêt ॥

|| $\frac{\bullet}{1}$ | tadâ $\frac{2}{1}$ || tadâ $\frac{3}{1}$ || *tadâ* $\frac{4}{1}$ || *dattaṁ* $\frac{132}{1}$ || *karaṇaṁ* । yadṛichchhâ vinyasê śûnyê । tatrêchchhâ || 1 || tadâ vargaṁ tu kârayêt | $\frac{1}{1}$ | $\frac{2}{1}$ | $\frac{2}{1}$ $\frac{3}{1}$ | $\frac{6}{1}$ $\frac{4}{1}$ | *pra*kshipê guṇitaṁ || 1 | 2 | 6 | 24 | *pra*kshiptaṁ 33 || dṛishyaṁ vibhajêt | $\frac{132}{33}$ | vartyaṁ jâtaṁ | $\frac{4}{1}$ | êsha pratha*mê*ṇa dattaṁ ॥ atô nyâsaḥ || 4 | 8 | 24 | 96 | dattam 132 êsha vargakramagaṇitaṁ ॥ atha yutivargaṁ dva-*triṁśâdhika*śataṁ ॥

Kâmikaṁ śûnyavinyastaṁ tadâ chaiva kramê guṇaṁ ।

. . . . ॥

Udâ ॥

. . . . ।

. . . . . . kṛitvâ chaturtha . . . . . ।

. . . . prathamasya kiṁ bhavêt ॥

sthâpanaṁ | $\frac{\bullet}{1}$ | $\frac{2}{1}$ | $\frac{3}{1}$ $\frac{3}{1}$ | $\frac{12}{1}$ $\frac{4}{1}$ | dṛi 300 | kâmikaṁ śûnyapinyastaṁ *kâ*mikaṁ 1 ॥ êsha nyastaṁ pra*thama*râśau । tadâ chaiva kramêṇa guṇitaṁ | 1 | 2 | 9 | 48 | êshâṁ yu*ti* prakshêpaṁ | $\frac{60}{1}$ | anêna dṛishyaṁ bhâjitaṁ | $\frac{1}{60}$ | $\frac{300}{1}$ | jâtâ | 5 | *êsha pra*thamasya dhanaṁ ॥ anêna

[16] Read *êkasyâhnê dvishaḍbhâgâ*. The error appears to have been noticed by the scribe of the manuscript.

kshêpaṁ guṇayê | 5 | 10 | 45 | 240 | *êvaṁ* 300 *ésha* yutivargagaṇitaṁ ||

Udâ ||

Prathamasya na *jânâmi* kathaṁ dattaṁ cha vai dhanaṁ |
Sa cha dvyardhayutaṁ dattaṁ . . . . ||

Udâ ||

. . . . |
. . . . dattaṁ chaiva chaturguṇaṁ ||
. . . . śataṁ chatuśchatvâliṁśâdhikaṁ |
Kiṁ prathamasya dhana . . . . ||

| • 1 | 1 1 2 | 2 1 | 2 1 2 | 3 1 | 3 1 2 | 4 1 | 4 1 2 | dṛi 144 1 2 | . . . . śûnyêsu | 1 1 | 1 1 2 | yutaṁ chaiva guṇaṁ tataḥ | yutaṁ chaiva guṇaṁ kṛitvâ kârayê gaṇakraman tu $\frac{5}{2}$ | guṇaṁ | uparê uparaṁ adhê adhaṁ guṇayê | $\frac{10}{2}$ | sârdhadvayayutaṁ | $\frac{15}{2}$ | tritîyarâśyâ guṇanaṁ | sârdhais saptabhi triṇi | $\frac{45}{2}$ | sârdhatrayayutaṁ | $\frac{52}{2}$ | chaturtharâśi guṇayê-shshaḍviṁśatibhi | jâtâ | $\frac{208}{2}$ | sârdhachatvâriyutaṁ | $\frac{217}{2}$ | *prakshêpayuti* | $\frac{289}{2}$ | *êvaṁ* dṛiśyaṁ | sarvaṁ tadêva jâtaṁ ||

Udâ ||

. . . . |
. . . . triguṇaṁ trisârdhayutaṁ ||
Chaturguṇaṁ chaturthêna navârdhayutaṁ dattaṁ[17] |
. . . . *dviśatâ* dvâviṁśâdhikâ ||
Kim atra prathamasya dattâsît ?

|| • 1 | 3 2 | 2 1 | 5 2 | 3 1 | 7 2 | 4 1 | 9 2 | êkatraṁ dattaṁ 222 ||

śûṇyâ sthânê rûpaṁ datvâ || 1 || yutaguṇita yutakramêṇa jâtaṁ || sthâpa*naṁ* | $\frac{5}{2}$ | $\frac{15}{2}$ | $\frac{67}{2}$ $\frac{357}{2}$ | dṛishya 222 | prakshêpêna jâtaṁ 222 || *da*ttaḥ dṛiśyâh 222 || jâ*taṁ* ||

Udâ ||

Prathamaṁ[18] na jânâmi divardhayutaṁ . . . |
. . ṇaṁ paṁchâśayutaṁ prathama . . . . ||

karaṇaṁ || śûṇyê rûpaṁ datvâ : yutaṁ jâtaṁ $\frac{5}{2}$ | prathamâ *dviguṇaṁ paṁchârdharahitaṁ* | *śêshaṁ* | $\frac{5}{2}$ | prathamâ tritîyaṁ triguṇa*ṁ saptârdharahitaṁ* | *śêshaṁ* | $\frac{8}{2}$ | *pratha*mâ chaturthaṁ chaturguṇaṁ navârdharahitaṁ | śêshaṁ | $\frac{11}{2}$ | *êsha nyâsaḥ* | $\frac{5}{2}$ | $\frac{5}{2}$ | $\frac{8}{2}$ | $\frac{11}{2}$ | dṛi $\frac{29}{2}$ | prakshêpayuktiḥ | $\frac{29}{2}$ | vibhaktaṁ | $\frac{2}{29}$ | $\frac{29}{2}$ | jâtaṁ | 1 | *anêna* guṇitaṁ tadêva | êvaṁ riṇarâśî bhavanti | triprakâraṁ samâptaṁ || Sûnyasthânê rûpaṁ datvâ | tadanuyuktaṁ | guṇita . .

TRANSLATION.

18th Sûtra.

Twice the difference of the two initial terms, divided by the difference of the (two) increments, and further augmented by one, shall be the time that determines the progression.

First Example.

A person has an initial (speed) of two and an increment of three, another has an increment of two and an initial (speed) of three. Let it now be determined in what time the two persons will meet in their journey.

The statement is as follows :

No. 1, init. term 2, increment 3, period x
No. 2, „ „ 3, „ 2, „ x

Solution :—" the difference of the two initial terms" (2 and 3 is 1 ; the difference of the two increments 3 and 2 is 1 ; twice the difference of the initial terms 1 is 2, and this, divided by the difference of the increments 1, is $\frac{2}{1}$, and augmented by 1, is $\frac{3}{1}$; this is the period. In this time [3] they meet in their journey which is 15).

Second Example.

(The problem in words is wanting ; it would be something to this effect :—*A* earns 5 on the first and 6 more on every following day ; *B* earns 10 on the first and 3 more on every following day ; when will both have earned an equal amount ?)

[17] This line is short by one syllable, and otherwise not regular in scanning The final question appears to be in prose

[18] Read *prathamasya* metri causâ, as in one of the preceding examples.

Statement :—

No. **1**, init. term 5, increment 6, period x, possession x.

No. **2**, init. term 10, increment 3, period x, possession x.

Solution :—"Twice the difference of the two initial terms," etc.; the initial terms are 5 and 10, their difference is 5. "By the difference of the (two) increments;" the increments are 6 and 3; their difference is 3. The difference of the initial terms 5, being doubled, is 10, and divided by the difference of the increments 3, is $\frac{10}{3}$, and augmented by one, is $\frac{13}{3}$. This (*i. e.* $\frac{13}{3}$ or $4\frac{1}{3}$) is the period: in that time the two persons become possessed of the same amount of wealth.

Proof :—by the *rûpôna* method the sum of either progression is found to be 65 (*i. e.* each of the two persons earns 65 in $4\frac{1}{3}$ days).

27th Sûtra.

Now I shall discuss the wastage (in the working) of gold, the rule about which is as follows :—

Having multiplied severally the parts of gold with the wastage, let the total wastage be divided by the sum of the parts of gold. The result is the wastage of each part (of the whole mass) of gold.

First Example.

Suvarṇas numbering respectively one, two, three, four, are subject to a wastage of mâshakas numbering respectively one, two, three, four. Irrespective of such wastage they suffer an equal distribution of wastage. (What is the latter ?)

The statement is as follows :—

Wastage — 1, — 2, — 3, — 4 mâshaka.
Gold 1, 2, 3, 4 suvarṇa.

Solution :—"Having multiplied severally the parts of gold with the wastage," etc.; by multiplying with the wastage, the products 1, 4, 9, 16 are obtained; "let the total wastage," its sum is 30; the sum of the parts of gold is 10; dividing with it, we obtain 3. (This is the wastage of each part, or the average wastage, of the whole mass of gold.)

(Proof by the rule of three is the following) :—as the sum of gold 10 is to the total wastage of 30 mâshakas, so the sum of gold 4 is to the wastage of 12 mâshakas, etc.

Second Example.

There are suvarṇas numbering one, two three, four. There are thrown out the following mâshakas; one-half, one-third, one-fourth, one-fifth. What is the (average) wastage (in the whole mass of gold) ?

Statement :—

quantities of gold, 1, 2, 3, 4 suvarṇa.
wastage $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ mâshaka.

Solution :—"Having multiplied severally the parts of gold with the wastage," the products may thus be stated,—$\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$. "Let the total wastage be divided;" the division being directed to be made, the total wastage is $\frac{163}{60}$; dividing "by the sum of the parts of gold;" here the sum of the parts of gold is 10: being divided by this, the result is $\frac{163}{600}$. This is the wastage of each part of the whole mass of gold.

Proof may be made by the rule of three :— as the sum of the parts of gold 10 is to the total wastage of $\frac{163}{60}$ màshaka, so the sum of gold 4 is to the wastage of $\frac{163}{150}$ mâshaka, etc.

Third Example.

(The problem in words is only partially preserved, but from its statement in figures and the subsequent explanation, its purport may be thus restored) :—

Of gold mâshakas numbering respectively five, six, seven, eight, nine, ten, quantities numbering respectively four, five, six, seven, eight, nine, are wasted. Of another metal numbering in order two mâshakas, etc. (*i. e.*, two, three, four) also quantities numbering in order one, etc. (*i.e.*, one, two, three), are wasted. Mixing the gold with the alloy, O best of arithmeticians! tell me (what is the average wastage of the whole mass of mixed gold) ?

Statement :—

wastage : — 4,—5,—6,—7,—8,—9;—1,—2,—3.
gold : 5, 6, 7, 8, 9, 10; 2, 3. 4.

(Solution) :—"Having multiplied severally the parts of gold with the wastage," the products are 20, 30, 42, 56, 72, 90. 2, 6, 12; their sum is 330; the sum of the parts of gold is 45: dividing by this we obtain $\frac{330}{45}$; this is reduced by 15 (*i. e.* $\frac{22}{3}$); the result is 7 leaving $\frac{1}{3}$ (*i. e.* $7\frac{1}{3}$); that is the wastage of each màshaka (of mixed gold).

Proof :—by the rule of three :—as the total

gold 45 is to the total wastage 330, so 1 mâshaka of gold is to $\frac{22}{3}$ parts of wastage. In the same way the proof of all (the other) items is to be made (*i. e.* $45 : 330 = 5 : \frac{110}{3}$; $45 : 330 = 6 : 44$; $45 : 330 = 7 : \frac{154}{3}$; $45 : 330 = 8 ; \frac{176}{3}$; $45 : 330 = 9 : 66$; $45 : 330 = 10 : \frac{220}{3}$).

50th Sûtra.

(The *sûtra* is lost, but can be partially restored from the solution, and may be thus translated :—"The sum of the additive and subtractive numbers is divided by an assumed number; the quotient, lessened by the same number and halved, is squared and added to the subtractive number.")

Example.

Which number added to five is a square, that (same) number lessened by seven is a square. Which number is that? This is the question.

Statement :—$x + 5 = x^2$, and $x - 7 = x^2$.

Solution :—"The sum of the additive and subtractive numbers" is 12; the half of it is 6; lessened by two is 4; its half is 2; its square is 4. "And is added to the subtractive number;" the subtractive number is 7; added to it, it becomes 11 (i. e. $4 + 7$). This is that (required) number.

Its proof is this: $11 + 5 =$ square of 4 (*i. e.* 16); and $11 - 7 -$ square of 2 (*i. e.* 4).

(The next *sûtra* is only a fragment, and I omit it).

53rd Sûtra.

(Having found) the two fractions (indicative) of the daily earnings, divide by their difference what is given towards (producing) equal possessions. The quotient, being doubled, is the time (in which their possessions become equal).[19]

First Example.

Let one hired Paṇḍit earn five in three days; another learned man earns six in five days. The first gives seven to the second from his earnings. Say, in what time, after having given it, their possessions become equal?

Statement :—No. I, $\frac{5}{3} =$ earnings of 1 day; No. II, $\frac{6}{5} =$ earnings of 1 day; gift 7.

Solution : "The difference of the daily earnings; the two fractions; their difference;" (here the daily earnings are $\frac{5}{3}$ and $\frac{6}{5}$; their difference is $\frac{7}{15}$; the gift is 7; divided by the difference of the daily earnings $\frac{7}{15}$, the result is 15; being doubled, it is 30; this is the time), in which their possessions become equal.

Proof may be made by the rule of three :— $3 : 5 = 30 : 50$, and $5 : 6 = 30 : 36$; "the first gives seven to the second" 7, remainder 43; hence 43 and 43 are their equal possessions.

Second Example.

Two Râjpûts are the servants of a king. The wages of one (of them) per day are two and one-sixth, of the other one and one-half. The first gives to the second ten *dînâras*. Calculate and tell me quickly, in what time there will be equality (in their possessions)?

Statement :—daily wages $\frac{13}{6}$ and $\frac{3}{2}$; gift 10.

Solution :—"and difference of the daily earnings;" here (the daily earnings are $\frac{13}{6}$ and $\frac{3}{2}$: their difference is $\frac{2}{3}$; the gift is 10; divided by the difference of the daily earnings $\frac{2}{3}$, the result is 15; being doubled, it is 30. This is the time, in which their possessions become equal).

Proof by the rule of three :—$1 : \frac{13}{6} = 30 : 65$; and $1 : \frac{3}{2} = 30 : 45$. The first gives 10 to the second; hence 55 and 55 are their equal possessions.

(The following examples form a connected set. The *sûtras* to which they belong are very imperfectly preserved, nor is there any indication left, how they were numbered. The examples also exist in a too fragmentary state to allow of any translation : but it is possible to restore their purport from what is left of the solution.

The *sûtra* belonging to the following example is lost. The example itself may be reconstructed thus :—)

The second gives twice as much as the first, the third three times as much as the first, the fourth four times as much as the first. The total gift of the four persons is two hundred.

[19] The above is undoubtedly the meaning of the rule, though the exact construction of the text is not quite clear to me. Literally the words appear to be "The two fractions of the daily earnings cause their difference to divide, so that (*tat-yat*) the quotient, being doubled, is the time, that which is given towards equal possessions." *Tadviséshaṁ* and *dattâ* are the two accusatives governed by the causal verb *vibhâjayêt*.

Tell me now, how much was given by the first, and what is the amount of each gift.

Statement:—A gives x, B 2, C 3, D 4. Total 200.

Solution:—Having filled up the empty place (or x) with one, (we obtain) 1, 2, 3, 4 (as the several rates); by the application of the sum of the rates we obtain 20, 40, 60, 80, and thence the total 200.

This is the statement of the proof:—

Init. term 20, increment 20, period 4.

By the *rûpôṇa* method the total is found to be 200.

Sûtra.

(Only the first portion of this *sûtra* is preserved; *viz.* "put into the empty place the number 1 representing the desired quantity, and then make up the series of items." The purport of this rule will be understood from the following examples).

First Example.

(Its purport is:—B gives 2 times as much as A, C gives 3 times as much as B, D gives 4 times as much as C. Their total gift is 132. What is the gift of A?)

Statement:—A gives x, B 2, C 3, D 4. Total 132.

Solution:—"Put 1 in the place of x; then form the series of items" 1, 2, 3 × 2, 4 × 6, multiplying these several rates, 1, 2, 6, 24, their total is 33; with it divide the given total, thus $\frac{132}{33}$; the resulting item is 4, and this is the gift of A. Hence the series of gifts is as follows:—4, 8, 24, 96, and the total gift is 132. This is calculated from the series of items, and hence the total of the items is one hundred and thirty-two.

(Here follows what appears to be intended as a modification of the same *sûtra*, since it is not specialised as a separate *sûtra*. What remains of it, runs thus:—"the number 1 is put into the empty place, and then (the items) are successively multiplied." The purport of the rule will be again understood from the example.)

Second Example.

(Its purport is:—B possesses 2 times as much as A; C has 3 times as much as A and B together; D has 4 times as much as A, B and C together. Their total possessions are 300. What is the possession of A?)

Statement:—A has x, B 2, C 3 × 3, D 4 × 12. Total 300.

Solution:—"the desired quantity is put in the empty place;" the desired quantity is 1; this is placed as the first number; then the successive multiplications are made, 1, 2, 9, 48. Their addition gives the sum of the rates 60; with this the given total is divided, thus $\frac{300}{60}$; the result is 5, and this is the possession of A. With this by multiplication the several rates are obtained, thus 5, 10, 45, 240. Thence the total of the items is calculated to be 300.

(Next follows the fragment of a third example which I omit. After this must have followed a third modification of the same *sûtra*, which is lost; but the first portion of it, as quoted in the examples, must have run thus:—

Śûnyasthânê rûpaṁ datvâ, yutaṁ chaiva guṇaṁ tataḥ ।

i.e., "having put the number one in the empty place, the (needful) additions and multiplications are then made.")

Fourth Example.

(Its purport is:—A possesses something and $1\frac{1}{2}$ in addition; B has 2 times as much as A and $2\frac{1}{2}$ in addition; C has 3 times as much as B and $3\frac{1}{2}$ in addition; D has 4 times as much as C and $4\frac{1}{2}$ in addition. Their total possessions are one hundred and forty-four and one half. What is the possession of A?).

Statement:—A has $x + 1\frac{1}{2}$, B $2 + 2\frac{1}{2}$, C $3 + 3\frac{1}{2}$, D $4 + 4\frac{1}{2}$. Total $144\frac{1}{2}$.

Solution:—"Having put one in the empty place," thus $1 + 1\frac{1}{2}$: "the several additions and multiplications are then made:" in making the additions and multiplications, let the proper order of calculation be observed, (hence by addition) $\frac{5}{2}$; next comes multiplication; (here) multiply numerator with numerator and denominator with denominator, $\frac{10}{2}$ (*i.e.* $\frac{2}{1} \times \frac{5}{2}$); two and one half are now added, thus $\frac{15}{2}$: now comes the multiplication with the third number, or three (is multiplied) with seven and one half (*i.e.* $\frac{15}{2} = 7\frac{1}{2}$), thus $\frac{45}{2}$; three and one half are now added, thus $\frac{52}{2}$; now multiply the number four with twenty-six (*i.e.* $\frac{52}{2} = 26$); the result is $\frac{208}{2}$; four and one half are now added, thus $\frac{217}{2}$. The total of these rates is $\frac{259}{2}$ which is the given total of the possessions. All the rest remains the same; (*i.e.* dividing the given

total $\frac{289}{2}$ by the sum of the rates $\frac{289}{2}$ we obtain 1 as the value of x, hence the possessions of A, B, C, D are respectively $\frac{5}{2}$, $\frac{15}{2}$, $\frac{52}{2}$ and $\frac{217}{2}$, the same as the rates mentioned above).

Fifth Example.

(Its purport is:—A gives $\frac{3}{2}$ *plus* a certain amount; B gives $\frac{5}{2}$ *plus* 2 times as much as A; C gives $\frac{7}{2}$ *plus* 3 times as much as A and B; D gives $\frac{9}{2}$ *plus* 4 times as much as A, B and C. The total of their gifts is 222. What was the gift of A?).

Statement:—A gives $x + \frac{3}{2}$, B $2 + \frac{5}{2}$, C $3 + \frac{7}{2}$, D $4 + \frac{9}{2}$; the joint gift is 222.

Solution:—"Having put the number one in the empty place," 1 (for x), the additions and multiplications are made in their proper order. The result is the following series of rates: $\frac{5}{2}$, $\frac{15}{2}$, $\frac{67}{2}$, $\frac{357}{2}$; the given total is 222. The addition of the rates yields 222, which is the same as the given total 222. This practically finishes the solution.

(Next follows the fragment of the sixth example, which I again omit).

Seventh Example.

(Its purport is:—A has $1\frac{1}{2}$ *plus* a certain amount; B has $2\frac{1}{2}$ less than 2 times A; C has $3\frac{1}{2}$ less than 3 times A; D has $4\frac{1}{2}$ less than 4 times A. Their total possessions are $\frac{29}{2}$. What is the possession of A?)

(The statement is wanting).

Solution:—"Having put the number one in the empty place," the addition is made $\frac{5}{2}$; twice the rate of A less five halves is $\frac{5}{2}$; three times the rate of A, less seven halves, is $\frac{8}{2}$; four times the rate of A, less nine halves, is $\frac{11}{2}$. The series of these rates is as follows: $\frac{5}{2}$, $\frac{5}{2}$, $\frac{8}{2}$, $\frac{11}{2}$. The given total is $\frac{29}{2}$. The sum of the rates is $\frac{29}{2}$. Dividing the one by the other, $\frac{29 \cdot 2}{2 \cdot 29}$, we obtain 1. Multiplying by this, the same amount is obtained (as the gift of A; *viz.* $\frac{5}{2}$) The same is the case with the negative quantities, (*i.e.* B $1 \times [(2 \times \frac{5}{2}) - \frac{5}{2}] = \frac{5}{2}$; similarly C $\frac{8}{2}$, D $\frac{11}{2}$).

NOTES.

1. In the text, the italicised words are conjecturally restored portions. The dots signify the syllables (*akshara*) which are wanting in the manuscript, the number of the dots corresponding to the number of missing syllables. The serpentine lines indicate the fact of lines being lost at the top and bottom of the leaves of the manuscript. In the translation the bracketed portions supply lost portions of the manuscript. The latter can, to a great extent, be restored by a comparison of the several examples. Occasionally words are added in brackets to facilitate the understanding of the passage.

2. **Sûtra 18.** Problems on progression. Two persons advance from the same point At starting *B* has the advantage over *A*; but afterwards *A* advances at a quicker rate than *B*. Question:—when will they have made an equal distance? In other words, that period of the two progressions is to be found where their sums coincide. The first example is taken from the case of two persons travelling. *B* makes 3 miles on the first day against 2 miles of *A*; but *A* makes 3 miles more on each succeeding day against *B*'s 2 miles. The result is that at the end of the third day they meet, after each has travelled 15 miles For *A* travels $2 + (2 + 3) + (2 + 3 + 3) = 15$ miles, and *B* $3 + (3 + 2) + (3 + 2 + 2) = 15$ miles. The second example is taken from the case of two traders. At starting *B* has the advantage of possessing 10 *dinâras* against the 5 of *A*; but in the sequel *A* gains 6 *dinâras* more on each day against the 3 of *B*. The result is that after $4\frac{1}{3}$ days, they possess an equal amount of *dinâras*, viz. 65.

3. **Sûtra 27.** Problems on averages (*samabhâgatâ*). Certain quantities of gold suffer loss at different rates. Question:—what is the average loss of the whole? The first problem is very concisely expressed; the question is understood; some words, like *kutô gatâ*, must be supplied to *samabhâgatâṁ*. The reading *rahitâ*, however, is not certain.

4. Brahmagupta's version of the **forty-ninth sûtra,** referred to above. (MS., No. I, B, 6. Library, As. Soc. Beng., p. 85) is as follows:—

Idânîm |

Yô râśir ishṭônô vargô bhavati, sô ch'ânyêshṭayutô varga êva bhavati ||

Tat-karaṇa-sûtram |

Yair ûnô yaiś cha yutô rûpair vargas tadaikyam ishṭa-hṛitam |

Ishṭônaṁ tad-dala-kṛitir ûnâbhyadhikâ bhavati râśiḥ ||

FACSIMILE OF A LEAF OF THE BAKHSHÂLÎ MANUSCRIPT.

Containing a portion of Sûtra 25.

Plate I.

Size 8¼" by 7".

Obverse restored.

The *karaṇa-sûtra* is translated by Colebrooke (*Indian Algebra*, p. 371) thus :—" the sum of the numbers, the addition and subtraction of which makes the quantity a square, being divided by an arbitrarily assumed number (*ishṭa*), has that assumed number taken from the quotient : the square of half the remainder, with the subtractive number added to it, is the quantity (sought)." The *sûtra* is followed by a commentary and an example, which differs entirely from that given in the Bakhshâlî MS. It will also be noticed, that Brahmagupta's *sûtra* is in the *âryâ* measure, while the fragments of the *sûtra* in the Bakhshâlî MS., as restored from the solution, are in the *ślôka* measure.

5. **Unnumbered sûtras.** Problems on distribution or partition. It may be noted that these examples afford an illustration of what has been before remarked regarding the nature and use of the dot. It will be noticed that the dot • is called *śûnya* or 'the empty place :' and as the first step of the process of solution the direction is given 'to fill up the 'empty place with the number 1,' the latter being arbitrarily assumed to represent the unknown quantity of which the value is sought (the *ichchhâ* or *kâmika*).—The meaning of the example of the first *sûtra* is :—if A gives 1, B gives 2 × 1 = 2, C 3 × 1 = 3, D 4 × 1 = 4. The sum of the rates is 1 + 2 + 3 + 4 = 10; dividing the given total 200 by 10, we obtain 20, as the gift of A. Hence the gifts of B, C, D are 40, 60, 80 respectively. The rule of the *rûpôna* method is not preserved in the Bakhshâlî MS. It is given, however, by Brahmagupta in the section of his Arithmetic on Progression. In Colebrooke's translation of Brahmagupta's work it is numbered 17 (on p. 290), and runs as follows :—" The period less one, multiplied by the common difference, being added to the first term, is the amount of the last. Half the sum of the last and first terms is the mean amount : which multiplied by the period, is the sum of the whole." Applying this rule to the present example we have :—the period 4 less 1 is 3; multiplied by the increment 20, it is 60; added to the initial term 20, it is 80. The sum of 80 and 20 is 100; half that sum is 50; and this multiplied by the period 4, yields the total 200. In the original Sanskrit (MS., No. I, B, 6. Library, As. Soc. Beng., p. 86) of Brahmagupta, the rule runs thus :—

Padâm êkahînam uttaraguṇitaṁ saṁyuktam âdinântyadhanaṁ ǀ
Âdiyut ntyadhanârdhaṁ madhyadhanaṁ padaguṇitaṁ phalaṁ ǁ

It will be noticed that this is in the *âryâ* measure, and that it is quite differently worded from the same rule in the Bakhshâlî MS., which commences with the word *rûpôna*, and which must have been in the *ślôka* measure. This confirms a remark previously made regarding the relation of the Bakhshâlî MS. to Brahmagupta.—In the fifth example of the second *sûtra* the rates are obtained thus: A gives $1 + \frac{3}{2} = \frac{5}{2}$; B $2 \times \frac{5}{2} + \frac{5}{2} = \frac{15}{2}$; C $3 \times (\frac{5}{2} + \frac{15}{2}) + \frac{7}{2} = \frac{67}{2}$; D $4 (\frac{5}{2} + \frac{15}{2} + \frac{67}{2}) + \frac{9}{2} = \frac{357}{2}$. The sum of the rates is 222; dividing with this the given total 222, we obtain 1 as the value of x; which practically finishes the problem : for multiplying each rate with 1, we obtain the same amounts $\frac{5}{2}, \frac{15}{2}, \frac{67}{2}, \frac{357}{2}$ for the several gifts of A, B, C and D.

6. The page figured on the accompanying plate reads as follows :—

1. . . . . . udà [ajñâta-r-ambhalôhasya tṛi-chatuḥ-paṁchakà kshayê ǀ sapta =
2. viṁśati piṇḍisya tṛidhânta-śêshya dṛishyatê ǀ kiṁ sarvaṁ vada tatvajña kshayaṁ cha
3. ma katthyatâṁ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ śe 27 karaṇaṁ ǀ kṛitva rûpa-kshayaṁ pârtha $\frac{2}{3}$ $\frac{3}{4}$ $\frac{4}{5}$
4. guṇitaṁ jàta $\frac{2}{5}$ rûpa-kshayaṁ $\frac{3}{5}$ anêna śêshaṁ bhaktaṁ śêshaṁ [27] bha =
5. [ktaṁ] jàtaṁ 45 asya saptâviṁśa pâtya śêshaṁ 18 ǁ êta kshayaṁ ǁ udà ǀ
6. [pa]rikshîṇasya lôhasya tṛidhântâṁ paṁchamâshakaṁ ǀ na jñâyatè [ta]t-pravṛittika
7. [na śê]sha pradṛiśyatê ǀ pravṛitti-śêshaṁ yô piṇḍaṁ kêvalaṁ viṁśati sthitaṁ ǀ â =
8. darśyatâṁ pravṛittî syâ kiṁ vâ śêshaṁ vadasva mê $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ kṛitvâ [rûpa =]

The lithographed plate, unfortunately, is not quite perfect. The transcript has been made from the original. *Ambha-lôha* I take to be the Sanskrit *abhra-rôha* 'lapis lazuli' (cf. Pâli *ambhô* 'a pebble'). For *paṁchamâśakaṁ* read *paṁchamâṁśakaṁ*. The purport of the first example is: "of an unknown quantity (*piṇḍa*) of lapis lazuli, on deducting the loss (in cutting), there remain $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ in three instalments (*tridhâ-anta*); the sum of the remainders of the three instalments is 27. What was the total, and what is the loss?" Solution: "Subtracting from 1 severally $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, we get $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$; these multiplied with one another are $\frac{2}{5}$; subtracting this from 1, we get $\frac{3}{5}$; the total remainder 27, being divided by this, we get 45; deducting from this the total remainder 27, we get 18 as the loss." Proof: the total is 45; at the first time of cutting, $\frac{1}{3}$ or 15 is got as cut stones; hence the loss (or what is cut away) is 30; the latter is cut once more, and $\frac{1}{4}$ or $7\frac{1}{2}$ is got as cut stones, the loss being $22\frac{1}{2}$; this is cut a third time, and $\frac{1}{5}$ or $4\frac{1}{2}$ is now got as cut stones, the final loss being 18. The produce of the three instalments of cutting, accordingly, is $15 + 7\frac{1}{2} + 4\frac{1}{2}$ or 27.—The second example is similar; only that here, besides the original (*pravṛitti*) total (50), the total produce (*śêsha* or what remains after deducting the several losses) is to be found (30), instead of the final remainder (*pravṛitti-śêsha*) which is given as 20. The solution (and proof) may be made exactly as in the case of the first example.

SOMALI AS A WRITTEN LANGUAGE.

No. III.[1]

BY CAPTAIN J. S. KING, Bo.S.C.

COLLOQUIAL SENTENCES.

English	Somâli
18.—How old are you?	ادگ اِتمس جربقہی or ادگ اِمساد جرتی
19.—Will you sell this?	ادگ وہ عا ابنیس
20.—Yes: I will sell it.	ها و ابنی
21.—Will you buy this?	ادگ و ہ عا اِبسنیس
22.—I will buy it.	و اِبسنی
23.—I shall beat you.	انگ و کگ دفن
24.—Hold my horse.	فرسکدیگی قبو
25.—I will hold it.	و قبنی
26.—What have you brought?	مہاد کینتی
27.—Bring me a good spear.	ورن وناقسن اِیکین
28.—I want a mat.	ڈرمان دونی
29.—Do you know what he says?	و ہو لیہیہی مقن
30.—Is this knife yours?	عندید مقادیب
31.—Yes: this is mine.	ها و ہ ابالیدہ
32.—Is much coffee produced in your country?	مغالداد بن بدن عملیدہی
33.—What is the charge for a camel-load?	اورک قاد کیسي و اِتمس
34.—Is any fresh water procurable here?	مجش بیو مغن عملیدہي
35.—How far is the town from the shore?	مغالد هیبت اِتمس جرت
36.—I saw you to-day in the bazar.	مانت سوکدي يان کو ارقی
37.—What were you doing there?	میش مہاد کسمینیسی
38.—I was buying some food.	وہ هان ارتو اِبسنی
39.—I shall come to your house to-day.	مانت اغلکاکي يان اِمنی
40.—I want some bread and salt.	اکبس آیو ارسبوہ یان دونی

[1] *Erratum in No. II. Somâli.* The last sentence in the left-hand column on page 285, Vol. XVI., should be written as follows:—"By this method the student is saved the trouble of wading through grammatical rules (which, without practice in their use, would probably not convey much information to his mind), and his attention is drawn only to those points of grammar which arise in the sentences."

41.—I wish to buy some *ghi* and rice. — سبگ ايو بريس انن ايبسدريان درنى

42.—Bring me some milk. — آنو ابكين

43.—Do you drink milk? — ادگ آنو مدمت

44—Yes: I do drink milk. — ويهى انگ آنو و دم

45.—Do you drink coffee? — ادگ قهوه معدت

46.—No: I drink water. — مايه بيان و اب

47.—Do you smoke tobacco? — ادگ بوري معدت

48.—Have you ever been to India? — ادگ ولي ارض الهندي مدكتى

49.—What pay do you require? — دگ اِمس مشاهره دونيس or بشي مهاد دونيس

50.—I will give you ten dollars a month. — انگ تولن قرشي مشاهره كوسيذى

Vocabulary and Grammatical Analysis, with Notes and transliteration.

18. **Adiga immisa jir ba tâhai? or, Adiga imsâd jirtai?** *Immisa* or *imsa*, how much? adv. of quantity. (H. p. 40.) *jir*, v. of existence. *Imsâd*, vide sentence 7.

19. **Adiga wahâ mâ ibinaisa?** *Wahá*, this: compounded of *wah*, some, and the def. art. *Ibinaisa*, 2nd pers. sing. pres. of *ibí*, v. 3, sell.

20. **Hâ: wâ ibinaiya.**—*Há*, interj., yes, just so!

21. **Adiga wahâ mâ ibsanaisa.**—*Ibsanaisá*, 2nd pers. sing. pres. of *ibso*, v. 8, buy. [Note the difference between *ibí*, v. 3, sell, and *ibso*, v. 8, buy.]

22. **Wâ: ibsanaiya**

23. **Aniga wâ ku gu—dufan.** *Ku*, pers. pron. 2, dative. *Gu=ku*, a prep. used with the verb *difo*. *Difo*, v. 4, always preceded by *ku*, when meaning to fall upon and beat with something. *N. B.—Difo*, without any preposition, means force, jerk. *So-difo* means force open. and *ka-difo*, take by force.

24. **Faras-kaigî ḳabo.** *Faras* (Ar.) s. m. horse. *Ḳabo*, v. 4. imperative, hold, catch.

25. **Wâ kabanaîya.**—1st pers. sing. present with a future signification.

26. **Mahâd kêntai?** *Kêntai*, 2nd pers. sing. perf. of v. *kén*, bring, fetch.

27. **Waran wanâḳsan î-kên.** *Waran* s. m. spear. *Wanáḳsan*, adj. good.

28. **Dirmân dônaiya.—Ḍîrmo.** s. f., mat (Vide sentence 9).

29. **Wahû lêhyahai mâ taḳan?** *Wahú*, contr. for *wah*, some, and *yú*, he (H. p. 14; *Léhyahai*, from the adjective root *aléh*, literally meaning 'possessed of,' but here used idiomatically. Probably the word *hadal*, meaning speech, talk, story, conversation, &c., is understood.

30. **Mindîda ma tâdî ba?** *Mindi*, s. f knife: *mindida*, the knife; *a*, the def. art. implying that the thing is actually present. The article is here assisted by the consonant *d*, because *mindi* is fem. and ends in a vowel. (H ss. 21-22). *Tádi*, possess. pron. 2nd pers. fem. (H s. 55).

31. **Hâ! wahâ an-âlêh.**

32. **Maghâladâda bunn badan mâ lêdahai?** *Maghálo*, s. f. country, city. *Dáda*, possess. pron. your. The possessive pronoun follows the same rules as the article in regard to the election of a consonant to complete it. The remarks under *mindida* (sentence 30), apply also to *maghala-dáda*. *Bunn*, (Arabic) s. m. coffee *Badan*, adv. of quant., much, past part. of v. *badi*, increase. *Lédahai*, from the root *áléh* (vide sentence 29).

33. **Awrka ḳâd kîsî wa immisa?** *Awr*, s. m. camel; *awrka*, the camel. *ḳád*, s. m. burden. *Kisi*, possess. pron. 3rd pers. sing, masc his (H. s. 55).

34. **Mêsha biyo m'an mâ lêdahai?** *Mel*, s f. place. *Mésha = mel*, with the def. art. affixed *l* being changed into *sh* for the sake of euphony. (H. s. 23). The change of these letters has already been noticed in the Introduction. *M'an*, adj., sweet.

35. Maghâlada **hêbta immisa jirta?** *Héb*, s. f. shore; *hébta*, the shore. (H. s. 23).

36. **Mânta sogkî yân kù arkai.** *Mánta*, adv. to-day = *mán*, day, with the def. art. affixed. *Arḳai*, 1st pers. sing. perf. of *araḳ* or *arag*, v. see.

37. **Mêsha mahâd ka-samainaisai?** *Ka* is here a verbal particle joined to the verb. *Samainaisai*, 2nd pers. sing. imperf. of *samai* v. 5, make, construct, do.

38. **Wah hân ûnnû yân ibsanaiyai.** *Wal*, s. m. some. *Hân*, pers. pron. 1, aided by the letter *h*, because the previous word terminates in that letter. (H. s. 22 and pp. 13-14). *Ûnnû*, s. f. food, dinner: derived from *ûn* v. eat

39. **Mânta aghalkâgî yân imanaiya.** *Imanaiya*, 1st pers. sing. pres. of *imo*. v. 4 irreg., come.

40. **Kibis îyo ôsbuh yân dônaîya.** *Kibis* (Ar. خبز *khubz*), s. f. bread. *Iyo*, conjunc., and *ôsbuh*, s. f. salt

41. **Subag îyo barîs înan îbsido yân dônaiya.** *Subag*, s. m. *ghî*, clarified butter. *Barîs*, s. m. rice *Inan* = *in*, that, with the 1st pers. pron. added; that I.

42. **Âno i—ken.** *Âno*, s. m. plur. milk.

43. **Adiga âno mâ-damta?** *Damta*, 2nd pers. sing. pres. habitual of *dan*, drink (milk)

44. **Wâ yahai: aniga (or anigo) âno wâ dama.** *Wâ yahai*, it is so; yes.

45. **Adiga kahwa mâ-fûdta.** *Kahwa* (Ar.) s. m. coffee (the beverage) *Fûd*, v. drink (coffee or smoke tobacco).

46. **Mâya: bî yân wâ aba.** *Mâya*. adv. no. *aba*, 1st pers. sing. pres. habit. of *ab*. v. drink (water.) [From this and the preceding sentences, it will be observed that the English verb 'to drink' is expressed in Somâli by three different verbs, according to the liquid drunk: and these verbs cannot be used indiscriminately.]

47. **Adiga bûrî mâ-fudta?** *Bûrî*, s. m. tobacco.

48. **Adiga wâlî ardhu-l-Ḥindî mâ-tagtai?** *Wali*, s. m. (used as an adverb), ever, hitherto, yet. (H. s. 267). *Ardh*, (Ar.) s. country, land, region.

49. **Adiga immisa mushâhara dônaisa?** or **Bishî mahâd dônaisa?** *Mushâhara*, (Ar.) s. m. monthly wages. (from Ar. *shahar*, a month). *Bil*, s. f. month. *Bishi* = *bil*, with the def. art affixed. (Vide sentence 34).

50. **Ânîga tôban karshî mushâhara kû sinaiya.** *Tôban*, s. f. num., Ten. *Karsh*, s. (Ar.) a dollar *Sinaiya*, 1st pers. sing. pres. (with a future signification) of *si*, v. 3, give.

FOLKLORE IN SALSETTE.

BY GEO. FR. D'PENHA.

No. 3.—*Râjâchâ Masthiâ.*

In a distant land once lived a great Râjâ who ruled over a vast kingdom. He had large armies at his command. The nobles and chieftains were all at his service, and he had everything that one could desire: but a misfortune marred his happiness, for he had no heir to succeed him after his death. So the Râjâ on this account was very sad, and gave large alms, and other things in charity in the hope that the receivers thereof would pray to God to give him an heir. At last his long cherished desire was fulfilled in his old age, when a son was born to him. The boy grew up very rapidly and was the joy of all his father's house, and of his subjects as well.

Now it happened that about two years afterwards a daughter was also born to the Râjâ, on whom everyone bestowed all care and attention, neglecting the prince, who was not so much as even looked upon,—a fact which he at once observed and felt deeply.

For several years matters continued in this state, and the prince, who had by this time attained the age of discretion, became disgusted. Early in the morning he would rise, take his sword and go out into the jungles, and there ask of the herdsmen (*gaunhlâs*) who tended the cows to give him milk, and on this alone he lived. At first he would drink only about a *sêr* or so, but by degrees he began consuming it by *mans*. Drinking milk in such quantities made him so strong, that on his way home he would uproot trees and destroy anything, even houses that came in his way. So he became known throughout the State by the name of Râjâchâ Masthiâ. As soon as he came home he would take to his room and never allow any one to enter. The servants would now and again come and tell him to take his meals, but he would tell them to go about their business Now the princess often saw him coming home from his daily visits to the *gaunhlâs*, but did not know that he was her brother. She also saw how he uprooted trees and did other feats of strength

When the princess became of a marriageable age, the Râjâ, her father, asked her to mention

any person that she would like to take for her husband. And as the princess did not know that Râjâchâ Masthiâ was her brother, she said:

"I will marry only him, who is so strong as to be able to take up an iron ball twice twelve *mans* in weight, and throw it at a distance of twice twelve *kôs*."

The Râjâ agreed, and accordingly sent notices to various Râjas and *pardhâns*, to the effect that any one, who could lift up an iron ball twice twelve *mans* in weight and throw it to a distance of twice twelve *kôs*, should have his daughter in marriage.

Accordingly on an appointed day, an iron ball twice twelve *mans* in weight was made ready, and a great many Râjâs and *pardhâns*, who had received the notice, came to try if they could lift it up and throw it to a distance of twice twelve *kôs*, and so get the beautiful princess.

All that had come tried their strength but in vain. Some of them could lift up the ball, but to throw it such a distance was impossible. They tried over and over again till late in the evening, and all despaired of success. Just then Râjâchâ Masthiâ was coming home from his usual excursion, and it happened that the iron ball of twice twelve *mans* in weight lay in his way. Not knowing the object of it, and not even paying any attention to all the Râjâs and *pardhâns* that were assembled there, with accustomed ease he took up the ball and threw it at a distance of twice twelve *kôs* and even more.

The princess was watching from one of the palace windows, and as soon as she saw Râjâchâ Masthiâ fulfil the condition she had imposed upon the successful suitor for her hand she at once ran to the Râjâ, her father, and told him that Râjâchâ Masthiâ was her choice. All the strange Râjâs and *pardhâns* were astounded at the strength of Râjâchâ Masthiâ; but at the same time they could not become reconciled to the idea of a sister marrying her brother. Her father and his guests all tried to persuade her of her folly, but she was not to be put off, and she said: "I must either marry *him*, even if he be my brother, and him alone, or die."

All were at a loss to know what to do. Nothing could dissuade her from the foolish love. However, they saw no alternative, and said they would make this case an exception, and everything was agreed upon and an early wedding day was fixed upon. Great preparations were made throughout the kingdom to celebrate such a happy occasion with a fitting pomp, and nothing was spared that could lend beauty and grandeur to the ceremony.

As to Râjâchâ Masthiâ, he was mad with rage when he heard what was going to take place, and he would not agree to it. So a few days before the day appointed for the wedding he took his sword and was sharpening it when one of the Râjâ's servants passed him and greeting him said: "Pardhân Sahib, all the palace is in a bustle prepaing for a wedding, and yet you seem to be taking it easy!"

"For whose wedding?" he asked, "are they preparing?"

The servant replied: "Why, are you so ignorant as that? It is your own wedding with your sister!"

But Râjâchâ Masthiâ in an angry tone told him to leave his presence at once, "or," said he, "I will tear you into a thousand pieces."

The poor servant, who knew the temper and strength of Râjâchâ Masthiâ only too well, left the place without another word.

Soon after this another servant was passing by, and said: "What are you doing, Pardhân Sahib? Where are you going that you are sharpening your sword, while all the palace is busy preparing for a wedding?"

"Whose wedding?" asked Râjâchâ Masthiâ.

"Why? can I believe that you are ignorant of it, when the wedding is your own with your sister?" replied the servant.

But he was also told to leave his presence by Râjâchâ Masthiâ, who threatened to tear him into a thousand pieces, and dreading his wrath the man went about his business without uttering another word.

While he was yet sharpening his sword, a third servant came up to him and asked what he was doing while all the palace was making grand preparations for the coming great event, namely his wedding with his sister. Râjâchâ Masthiâ was furious and flew at him sword in hand, telling him to go away, "or," said he, "I will tear you into a thousand pieces." Like the other two servants this servant, too, feared to provoke him further and quietly went away.

Now Râjâchâ Masthiâ's sword was of such a nature, that if it rusted he would fall sick, and if it broke he would die. His life lay

in the sword, and consequently he could not dispense with it. So taking his sword and his horse, Râjâchâ Masthiâ left his house, without informing his father or any one else. They all saw him going away, but they thought that he was only going on his daily excursion, and that he would return as was his wont, little suspecting that he was going for good.

So away he rode, through jungles and forests, and had travelled some distance when he met a hunter who was carrying a gun on his shoulder. Râjâchâ Masthiâ called out to him: "Hallo hunter, what is the weight of your gun?"

"Fifteen *mans*," the hunter replied.

"You must be a very strong man to carry a gun fifteen *mans* in weight, continually on your shoulder!" said Râjâchâ Masthiâ.

"Oh, no!" replied the hunter. "Râjâchâ Masthiâ is the only strong man, who lifted an iron ball twice twelve *mans* in weight, and threw it a distance of twelve *kôs*."

"I am he," Râjâchâ Masthiâ replied.

On this the hunter said! "Then I must follow you. I will go with you wherever you go. I will live and die with Râjâchâ Masthiâ."

Râjâchâ Masthiâ now pursued his way followed by his new friend, the hunter; Râjâchâ Masthiâ riding his horse, while the hunter followed on foot. They travelled in this way for a long time when it struck Râjâchâ Masthiâ that it was unbecoming that he, though a prince, should ride a horse, while his friend, the hunter, walked. So he let his horse loose to go where he liked, and both made their way on foot. When they had travelled for several days they came on a carpenter who was carrying his saw on his shoulder, and other tools in a bag swung on his back. Râjâchâ Masthiâ called out to him:

"Hallo carpenter! what is the weight of your saw and the other tools?"

The carpenter replied: "The weight of my saw is ten *mans* and that of the other tools is five *mans*, in all fifteen *mans*."

Râjâchâ Masthiâ said: "Indeed, you are a very strong man, to carry tools fifteen *mans* in weight continually about you."

"Oh no!" said the carpenter. "My strength is nothing compared to that of Râjâchâ Masthiâ, who lifted up an iron ball twice twelve *mans* in weight, and threw it at a distance of twice twelve *kôs*. He is really strong."

Râjâchâ Masthiâ said: "I am that Râjâchâ Masthiâ, who lifted that iron ball twice twelve *mans* in weight and threw it at a distance of twice twelve *kôs*."

On this the carpenter said: "Well, then, I will go with you wherever you go. Even to death will I follow you."

Now these three, Râjâchâ Masthiâ, the hunter and the carpenter, all travelled together. After many days they came to a city late in the evening, but they were surprised to find that it was deserted, and not a single soul to be seen. All the houses and shops were open.

Râjâchâ Masthiâ said: "What can be the cause of this? We will remain here for some days and find out what it all means."

So they put up in a large house. They went to one of the shops, and took what was necessary, laying the proper money on the counter. They then cooked their food, ate it and went to sleep

Next day Râjâchâ Masthiâ said to the carpenter: "The hunter and myself are going round the village; you stay at home and prepare the dinner to-day."

The carpenter agreed and set about his work, while Râjâchâ Masthiâ and the hunter went to inspect the village. In due time the rice was ready and the carpenter poured it out on a *pêthrâvêl*,[1] when lo! a rânkhas, three palmyras in height, made his appearance and asked for the rice or he said he would swallow the carpenter. The poor carpenter was at a loss to know what to do; but seeing that if he did not give up the rice his life was at stake, he gave it up. The *rânkhas* having done justice to the rice disappeared. The carpenter set about cooking rice again, but before it was done Râjâchâ Masthiâ and the hunter came in and asked if the dinner was ready. The carpenter did not like to incur the displeasure of Râjâchâ Masthiâ, nor did he wish him to know that a *rânkhas* had come and swallowed the rice he had previously cooked, for fear of being called a coward, and so he made some excuse for the delay in making the dinner ready. All three set about it and when it was prepared they all had their fill and rested.

On the following day Râjâchâ Masthiâ told the hunter that it was his turn that day to stay at home and prepare dinner, while the carpenter and himself went out. Thus saying they

[1] A plate made of leaves.

both went out, and the hunter having taken what was necessary from the shops, laid the money on the counters, and set about cooking. When the rice was boiled he poured it on a *pathrâvêl*, when the *rânkhas* made his appearance again and demanded the rice of the hunter. The hunter was a little reluctant at first, but the *rânkhas* said: "Give up the rice at once or I will make a meal of you instead." The hunter was terror-stricken at these words, and without any resistance handed the *pathrâvêl* with the rice to the *rankhâs*, who ate it and disappeared.

Now the hunter hastened to boil some more rice, but Râjâchâ Masthiâ and the carpenter came in and asked for dinner. The carpenter who had had his experience the day before, at once conjectured that the hunter must have met with the same fate as he had, and understood the cause of the delay. The hunter, too, guessed that the carpenter must have also had a visit from the *rânkhas* but of course he would not tell Râjâchâ Masthiâ what had occurred, and made some excuse to account for the delay. All hands were now busy in preparing dinner, and when it was ready they satisfied the cravings of hunger.

When they rose on the third day Râjâchâ Masthiâ said: "To-day it is my turn to cook. You two go about the village." But the hunter and the carpenter would not allow it. Said they: "It is not becoming that you, a *pardhân*, should cook and give us to eat. We two will make it our duty to cook every alternate day." They said this, not because they really had any feelings of respect towards Râjâchâ Masthiâ as a *pardhân*, but because they feared that he would come to learn of their encounters with the *rânkhas*, and they would thereby be disgraced. Râjâchâ Masthiâ, however, was not to be persuaded, but said: "You had your turns and you did your duty. To-day it is my turn, and I must do my duty. I am a *pardhân* it is true, but here I do not insist on my dignity. We are equals."

The hunter and the carpenter saw no alternative but to submit. So they went about the village, fully believing that at their return they would be reprimanded for their cowardly conduct on the previous days. As soon as the hunter and the carpenter were gone Râjâchâ Masthiâ went to one of the shops, took rice, *ghî*, and other necessaries, put down the proper price on the counter, and set about preparing the dinner.

In a short time the rice was boiled and Râjâchâ Masthiâ poured it over a *pathrâvêl*, when lo! the *rânkhas* scenting the fine savour of the dinner came to claim his share.

"Who are you?" asked Râjâchâ Masthiâ, "and what do you want here?"

The *rânkhas* replied: "Do not trouble yourself as to who I am, give up the rice in an instant, or you are my victim. I will swallow both the rice and you."

But our hero was not to be deterred by such threats. "Wait a few moments," he said, "and I will give you the rice." Saying this he went and fetched his sword, and with one stroke he stretched the *rânkhas* on the ground, where he lay like a great mountain. Having killed him he proceeded to examine this great monster more closely, when his attention was attracted by something very bright at the rânkhas' waist. Approaching the body Râjâchâ Masthiâ took it and found it was a diamond of great size. Now near where the *rânkhas* lay dead was a tank. As soon as the diamond was reflected in the tank, behold! there a passage opened. Râjâchâ Masthiâ descended by a ladder that he saw, and he came to a splendid palace. Entering it he saw a damsel of rare beauty, and chatted with her a long while, and then finding that it was time for the hunter and the carpenter to return for dinner, he left her, though she was very reluctant to let him go. He, however, took good care to take the diamond with him. He came home just a little before the hunter and the carpenter returned, and when they came he pretended that nothing had happened. After they had their dinner, Râjâchâ Masthiâ asked first the carpenter and next the hunter, to tell him the true cause of the delay in preparing dinner on the previous days. They confessed their faults and begged forgiveness. Râjâchâ Masthiâ, who was as kind-hearted as he was strong, knew their weakness and forgave them, warning them, at the same time, not to tell lies again. He then took them and showed where the mountain of a monster lay dead.

The next thing Râjâchâ Masthiâ did was to put up on a lofty post a large flag with the inscription: "All who are of this city need

fear nothing. The monster their enemy is no more. Râjâchâ Masthiâ has killed him and is now king." The citizens who had migrated into neighbouring places read the inscription with great joy, and once more came and took possession of their shops and houses. All saw with admiration how their enemy lay dead, and blessed their deliverer, Rajachâ Masthiâ.

They continued to live in that city for a time, during which Rajâchâ Masthiâ introduced his friend the carpenter to the fair lady in the subterraneous palace. They were so fascinated with each other, that Rajachâ Masthia had pity on the poor carpenter, and so arranged for their wedding. In due time everything for the marriage was ready, and it was celebrated with great pomp; all the citizens were invited, and the rejoicings lasted for several days.

After living in this city for a year or two Rajachâ Masthia thought of visiting other countries, and so, making over the charge of the city to the carpenter, he took his leave of him and his fair bride. The citizens did not like to part with him, but they could not keep him back: and before leaving Râjâchâ Masthiâ gave strict orders that all were to obey his friend, the carpenter, whom he gave them as king in his stead. He also gave the carpenter the diamond that he had taken from the *rânkhas's* waist, as it was necessary for him to go in and out of the subterraneous palace. The carpenter could not bear the idea of parting with his friend, but after much argument he was persuaded to remain. However he said: "My dear *pardhân* and friend, to part with you is almost death to me, but as it is your desire that I should remain here and be king in your stead, I agree to it only to please you. But should anything occur to you how am I to know so that I can come to see you? Give me some sort of sign by which I could know that you are ill or in danger." Rajâchâ Masthia gave him a plant and told him to plant it near the palace door. He said, "If this plant should fade, know that I am sick or in danger; if it should die, know that I am also dead." Thus saying Râjâchâ Masthiâ left with his friend, the hunter—the carpenter, his bride, and all the citizens shed tears, thinking that they should never see him again.

Rajâchâ Masthiâ and the hunter now both travelled for several days and came to another beautiful city. They went to an old woman's house and begged for lodging. The old woman willingly agreed. It so happened that she had seven fair daughters. The youngest and the fairest was, however, next to dead. She was afflicted by a big snake, and if any persons slept near her the snake used to come out of her and kill them. On this account the old woman was very down-hearted. Râjâchâ Masthia inquired of her the cause of her sorrow, and being informed what it was told the old lady to calm herself. He said he would make short work of the snake, if only she followed his instructions. He told her to buy him seven *mans* of wheat flour, seven *mans* of sugar, and seven *mans* of *ghî*. The old woman readily brought it, and Râjâchâ Masthiâ made a figure of a man out of them, and in the night he placed it by the side of the youngest daughter, and told the old woman on no account to put her hand, much less come close to the girl. Having done this Râjâchâ Masthiâ with a naked sword in his hand hid himself close by, waiting for the snake to come out. He had not to wait long before it came out and bit at the figure, and finding it taste sweet, it came out altogether, coiled itself on the wheaten figure, and set to eating it. Rajachâ Masthia now thought it his opportunity, and with one stroke the snake dropped dead, cut into several pieces. From that moment the girl was cured of her malady, and went about as healthy and fair as the rest of her sisters. The old woman was very pleased and ran to take up one of the pieces of the snake, but Rajâcha Masthia chopped off her hand, and taking it up left the house.

(To be continued.)

A NOTICE OF THE ZAFARNAMA-I-RANJIT SINGH OF KANHAYYA LAL

BY E. REHATSEK.

(*Continued from p. 340.*)

36. In the *Samvat* year 1883 [A.D. 1826] it was reported to the Mahârajâ that Yâr Muhammad was in the possession of a mare, Lailî by name, the like of which, in beauty and in speed, had never been owned by any sovereign. Accordingly he demanded it from

Yàr Muḥammad Khàṅ, who sent back the messenger with an evasive answer: whereon Ranjît Singh ordered the **Sardâr Buḍḍhâ Singh** forthwith to march with troops and artillery to Pêshâwar and to take the animal by force. At that time there was a free-booter, **Sayyid Aḥmad** by name, in the vicinity of Peshâwar, who had many Hindustânî Muslim followers, and pretended that he would some day conquer the Pañjàb. Meanwhile, however, he contented himself with besieging a small Sikh garrison which held the fort of Haidrû, and on hearing of this, when approaching with his troops, the Sardâr Buḍḍhà Singh determined to liberate the said garrison. Sayyid Aḥmad, however, learnt that the Sikh troops were far inferior to the number of his own followers, and therefore, surrounding them at some distance, cut off all supplies. The Sardâr, who had, with his Sikhs, been thus compelled to fast during several days, sent a courier to demand reinforcements. Accordingly the Mahàràja issued instructions to the **Râjâ Suchêt Singh,** and to the **Mahârâjâ Gulâb Singh** of Jammûṅ and Kashmîr, to proceed with their armies by forced marches at once to Pêshâwar, in order to liberate the Sardàr Buḍḍha Singh, whom the Afghans had encompassed. The prince Shèr Singh received similar orders, as well as the Generals Ventura and Allard, but when they reached Aṭak the news arrived that the **Sardàr Buḍḍhâ Singh,** driven to despair by hunger, had broken the cordon which surrounded him with his troops, and had, after a hot contest, put Sayyid Aḥmad to flight.

When Yar Muḥammad became aware of what had befallen the freebooter in whose aid he trusted, he humbly excused himself to the Sardàr Buḍḍhâ Singh, and sent him a *nazarânâ* with rich presents, declaring however that the famous steed **Lailî** had died. The Prince Shêr Singh reported all this in a letter to the Mahàràjà, who thereon replied approving of the valour displayed by the Sardar Buḍḍha Singh, and instructed him to levy tribute from Yàr Muḥammad, and to re-instal him as governor of Pêshâwar, but that in case it should be ascertained that he had falsely reported the death of the horse, to take it from him by force. The Sardàr then returned to Lâhôr and was invested with a robe of honour, but left the troops which had marched there under other commanders at Atak. Meanwhile the information arrived that Lailì was not dead, but that Yár Muḥammad, who feared to be deprived of the horse, had only removed it to another place of concealment. The Mahàràja therefore ordered the prince **Kharak Singh** to depart immediately to Pêshawar, and to offer to Yâr Muḥammad any amount of money for the horse, but to remove him from his post of governor if he refused to part with it; and also to purchase at any price from **Shêr Muḥammad** another celebrated horse known by the name of **Shîrîn.** The prince not only himself obeyed, but took the precaution of marching with all the forces left in Aṭak to Pêshâwar, where he encamped. Yàr Muḥammad, however, immediately fled, leaving him in the possession of the town, where he made a sojourn of eight months; and purchased from Shêr Muhammad the horse Shîrin, paying him a lump sum of money for it, and giving him a landed estate the annual revenue of which amounted to 10,000 rupees.[65] He appointed **Sultân Khâṅ** to be governor of Peshawar, imposing upon him the obligation of sending annually the required tribute money to Lahôr. Then the prince marched with the army as far as Atak, and it remained encamped there whilst he hastened to Lahòr; whereon Yar Muḥammad, as soon as he learnt that the troops had gone to Aṭak, immediately expelled Sultan Khâṅ from Pêshàwar. Ventura who was at that time in Atak, forthwith sent a courier to the Mahàràja, asking for permission to deprive Yar Muḥammad of the fort. To this Ranjit Singh replied that he desired nothing more from the latter than the horse Lailî and his annual tribute as a loyal vassal; and the General was therefore to give him any price he might ask for the animal, but was to wage war against him if he refused to comply. Ventura accordingly despatched a friendly letter to Yàr Muḥammad asking him to sell the horse and threatening him with hostilities if he demurred.

Whilst Yàr Muḥammad was preparing to give Laili to her Majnûn[66] the report arrived from Pêshâwar that the freebooter **Sayyid Aḥmad** had again raised disturbances and was

[65] This is scarcely credible.

[66] The above is an allusion to the loves of Laili and Majnûn sung by many authors, and sometimes compared by European writers to those of Romeo and Juliet.

plundering, with the intention of conquering the whole of the Pañjâb. Accordingly Yâr Muhammad advanced at once and attacked him, but being in want of the needful ammunition, he had to struggle with great disadvantages, fought valiantly, and was slain. Ventura immediately afterwards dispersed the freebooters, took possession of Pêshâwar, and wrote to the Mahârâjâ for instructions, which soon arrived, and were to the effect that if Sultân Khân promised to pay the annual tribute, to remain loyal, and to part with Lailî, he should be appointed governor of Pêshâwar and enjoy the favour of the Mahârâjâ: in case, however, of the refusal of Sultân Khân to accept these proposals, Ventura himself was to govern the district of Pêshâwar on behalf of Ranjît Singh. The wishes of the Mahârâjâ having been communicated to Sultân Khân, he promised implicitly to obey them, and at once produced the mare Lailî, offered a *nazarâna* and received a robe of honour in return for it. The arrival of **Ventura** in Lâhôr **with Lailî** which he presented to the Mahârâjâ, was a signal for great rejoicings and the showering of favours upon the General, who however, was not long there before the news came that, as soon as he had departed from Pêshawar, Sayyid Ahmad had arrived there, and that Sultân Khân, being a coward, had paid him allegiance, so he had left him in his post of governor and continued his depredations, which, if conducted on a more extensive scale, would eventually spread to the Pañjâb unless checked. Accordingly the Mahârâjâ forthwith despatched the prince **Shêr Singh** with troops to punish the robbers, and after the latter reached the Hazâra country he issued proclamations to the inhabitants that they ought not to flee and had nothing to fear from the Sikh troops. Then he attacked the enemy, thousands of whom were slain in a single engagement, **Sayyid Ahmad** himself with his relative and Wazîr Maulavi Ismaîl being among the number. When tranquillity had been completely restored, and the rebels utterly exterminated, the prince again installed Sultân Khân as governor of Pêshâwar, and returned with the troops to Lahôr, when the Mahârâjâ received him with great honours.

31. Ranjît Singh, who entertained great affection for the king of **England,** desired to manifest it by sending him the following presents:—Very fine garments of wool and silk; priceless gems, such as diamonds, rubies, and turquoises; a beautiful carpet of Kashmîr-wool interwoven with gold; a great tent of woollen cloth, the like of which had never been seen; and various other rarities. The bearer was the great **Amîr Faqîr 'Azîzu'ddîn,** whom the Governor-General received in *darbâr* at **Simla,** and graciously thanked after he had delivered his message. The presents arrived safely in London, and were highly approved of by the king, who, in his turn, sent various gifts to the Mahârâjâ, and among them a vehicle called a *phaeton* with four noble and swift-footed mares, and a beautiful Arab steed. The envoy, **Mr. Burnes,** who had brought these gifts from England, was received by the Mahârâjâ with great honours in a *darbâr* at Lahôr, and **Mr. Wade,** the Agent of the English Government, who usually resided at Lôdiânâ, having arrived, was likewise present. After the termination of the *darbar* the Mahârâja gave a brilliant state dinner. Then the **Sârdâr Harî Singh** with **Faqîr 'Azîzu'ddîn** and **Môtî Râm,** who was also a high dignitary at the court of the Pañjâb, departed to Simla with presents of fine garments and precious stones for the Governor-General, with the request that the Mahârâjâ desirous of strengthening the bonds of friendship between the English Government and himself, wished to have a personal interview with His Excellency, whom he begged to point out a convenient and pleasant locality for the meeting. The Governor-General graciously received the three envoys, and, assuring them that the king of England entertained the sincerest friendship for their sovereign, mentioned **Rûpar** as the place most convenient for the interview. When the three envoys returned with this information, preparations were immediately begun, and all the troops who were to escort the Mahârâjâ obtained brand new uniforms; the courtiers and high *amirs* also received notice to make arrangements for appearing in the best manner they could on that solemn occasion; and, all being ready, the Mahârâja started with 10,000 cavlary, 6,000 infantry and ten pieces of artillery, but first proceeded with all these troops to Amritsar where he spent two weeks, celebrating the Dasahra festival and carousing. He then he marched straight to Katgadh and encamped

The Governor-General, having been informed of the Mahârâjâ's arrival, likewise started with his officials and troops, taking up his quarters at Rûpar, whence he despatched a high officer, Ramsay by name, to welcome Ranjît Singh, who, in his turn, made a complimentary reply. When the said English officer departed, the Mahârâjà sent his own son and heir-apparent, Kharak Singh, at the head of a deputation, which consisted of a number of *amîrs*, and amoug them Srî Mahârâjâ Gulâb Singh, the Governor of Jammûñ and Kashmîr, Sardâr Harì Singh, Râjâ Sangat Singh, 'Atar Singh, and Shám Singh, to wait upon the Governor-General for the purpose of inquiring after his health. After the prince had crossed the river and approached the Governor-General's tent, His Excellency came out with a number of English gentlemen and took the deputation into the *darbâr*-tent, where, after the exchange of compliments and presents, the *amîrs* were invested with robes of honour, and returning informed the Mahârâjâ of the polite reception they had met with. He was highly pleased with their report, but was disquieted by the suggestions of some malevolent persons, who averred that it would have been more safe to have the interview in his own dominions, at Amritsar, where he would have been in perfect security, whereas in this place the English might during the interview easily surround him and make him prisoner. The apprehensions of the Mahârâjà having somehow been brought to the notice of the Governor-General, he immediately despatched his Secretary to Ranjit Singh to assure him that the English were an upright nation, incapable of treachery, and that nothing but closer relations of amity would result from the meeting. Although the fears of the Mahârâjà had been almost totally dissipated by the declarations of the Secretary, he nevertheless considered it proper to consult his astrologers on the subject, and summoned to his presence all who possessed a subtle knowledge of the stars, as well as all the Brâhmans who had studied the *Vêdas*. They contemplated the rotations of the spheres and calculated the motions of the stars, deeply meditated on the results yielded by their calculations, and at last declared, that fortune being propitious, and the Creator helpful, the Mahârâjâ ought fearlessly to meet the Governor-General, who was his well-wisher, and only observe the precaution to take with him two apples, one of which he must at the time of meeting present to the Governor-General, and immediately consume the other himself.

32. The Mahârâjâ having issued orders to the cavalry to get ready, and to his *amîrs* to dress in silver and gold attire, and to bring out their elephants and gilded *haudâs*, their horses and silver saddles, mounted his *haudâ*, while the artillery fired a salute, the bands played, as the drums resounded, as the Mahârâja started, flanked by cavalry, and accompanied by his *amîrs* on elephants. When the cortège arrived at the bank of the river, the Mahârâjâ ordered a halt, and desired only 700 cavalry and 200 infantry to accompany him to the other side. They all marched across the bridge followed by Ranjît Singh, who then passed on to the road, one side of which lined by gigantic Pûrbiâs and the other by European troops, all drawn up in military order. On this salutes of artillery and musketry were fired and military bands played. Then a high English officer came to meet and accompany the Mahârâjâ, and when the procession had reached the Governor-General's tent His Excellency came out, lifted his hat, warmly shook hands with the Mahârâjâ, and seated him on an elevated place in the tent, with the English gentlemen, whose heads were uncovered, on his right, and his own *amîrs* on his left side, all sitting in great dignity with golden turbans but naked feet. After the Governor-General had uttered a few sweet words of welcome to the Mahârâja, he ordered the band to play, and whilst the audience was being enchanted with delightful music, the presents intended for the Mahârâjâ were brought forth, laid out on fifty golden trays, displaying turquoises, rubies, dishes full of gold, and wonderful clocks. The Governor-General also presented the Mahârajà with an enormous elephant and a golden *haudâ*, two fleet horses with costly trappings, and a dinner-service, the plates of which were of silver and gold; and lastly accompanied him to the place of leave-taking.

33. On the same day the Mahârâjâ ordered his son Prince Shêr Singh likewise to pay a visit to the Governor-General, and to request him to condescend on the next day to review the Sikh troops. The invitation having

graciously been accepted, the Mahârâjâ had a splendid tent pitched with red and gold carpeting, an elevated seat and 20,000 [?] chairs round it. A number of other tents with silver poles and silken ropes surrounded the large one, all guarded by gold-turbaned servants, who had silver *bâtons* in their hands. All the troops having been drawn out, and the line through which His Excellency was to pass arranged, the two princes Shêr Singh and Kharak Singh were sent to inform **Lord [William] Bentinck** that everything had been got ready; whereon the Governor-General at once proceeded to the bank of the river, whilst the Mahârâja approached it on the other side to meet him, and the Mahârâjâ's artillery having fired a salute, they proceeded together to the tent where they took their seats, surrounded by English officers and Sikh Amîrs. The *nazarânâ* having been presented, the Governor-General touched it with his hand according to the usual custom, and then a hundred ornamented trays representing boats were brought in, loaded with costly garments, rubies, corals, pearls, diamonds, silver, gold, and various curiosities from Kashmîr and Multân, as well as other presents, such as every kind of silk and gold embroidered cloth, heaps of woollen stuffs, necklaces of jewellery, swords, muskets, bows and arrows, pistols, carbines, battle axes and lances. The Mahârâjâ presented to the Governor-General in addition to the above, four fleet horses with golden saddles, and two mountain-like elephants, for which he expressed his best thanks and then took leave

34. The Mahârajâ having after these two interviews determined to give an entertainment to the Governor-General on the third day, ordered all the preparations to be made, and these consisted in furnishing a splendid tent with elegant carpets. Musicians, singers and dancers of both sexes were ready to enliven the feast, and thousands of chandeliers with crystal pendants were hung up to illuminate it. Food and drink of every variety, with fruits and confectionery, having all been provided in the greatest abundance, and the countless chandeliers, lamps, candles and flambeaux lighted in the evening, the scene presented a magical and fairy-like aspect. Ranjit Singh despatched [illegible] Mahârâjâ Gulâb Singh to apprize the Governor-General that all was ready, who then entered his carriage with his retinue and started immediately. He was met half way by Ranjît Singh, who then conveyed him to the improvised banqueting hall, where the English guests sat on chairs, and the *amîrs* in their usual manner. Then the musical entertainment began with dancing and singing, in which the blooming beauties of the Pañjâb naturally played the chief part. Refreshments were partaken of, and potations indulged in to such a degree that the effect of the latter began to manifest itself at last in an uproar, to drown which the Mahârâjâ immediately gave orders for the bands to strike up, and when the tremendous noise made by the united kettle-drums, bugles, fifes, trumpets and clarionets ceased, the Mahârâjâ added to the abovementioned gifts for the Governor-General one more elephant with a golden *hauda*, with two beautiful horses, and presented to all the English guests shawls, golden turbans, and robes of honour, after which they took their leave and departed.

35. On the evening of the fourth day the Secretary of the Governor-General made his appearance on horseback in the camp of the Mahârâjâ, and invited him to an entertainment, whereon he left his camp with the *amîrs* of his *darbâr*, and was met on the road by the Governor-General, who took him to a brilliantly illuminated tent in which beautiful English ladies were sitting on one side, and gentlemen on the other. A band played, refreshments were served, and the Governor-General presented the Mahârâjâ with horses having golden saddles, with Indian and Chinese curiosities, wonderful garments, beautiful turbans, necklaces of diamonds and of other precious stones. Lastly the Mahârâjâ took his departure.

36. The Mahârâjâ having, through the Sardâr Harî Singh, conveyed to the Governor-General his desire to witness the military exercises of British troops, the latter invited him to be present. Accordingly all the European and Indian troops, cavalry and infantry, were drawn out, and after performing some manoeuvres they exhibited some target practice with muskets and artillery. After which the Mahârâjah first ordered the Râjâ Dhyân Singh, who had some knowledge of the matter, as well as a number of his bodyguard, to show their skill and they were successful in hitting the target

Lastly the Mahârâjâ himself showed his horsemanship and agility by galloping towards a brass vessel set up on a lance for a target and cutting it in two with his sword whilst passing. Then he departed to his camp.

37. The next morning Ranjît Singh ordered all his troops to parade, and sent three of his Sardârs to invite the Governor-General to behold the spectacle. When His Excellency arrived, the troops saluted according to the English fashion, and salvoes of artillery thundered; after this a sham fight was executed, which elicited the applause of the Governor-General, who then returned to his quarters. The next day, being the last of the Mahârâjâ's sojourn, he mounted an elephant and paid a visit to the Governor-General for the purpose of taking leave. On this occasion he was presented with two brass cannon and ten Arab horses. After this visit he returned to his own camp to spend a few days more in hunting, because the locality pleased him greatly, and then he went to Amritsar and paid his devotions at the temple of Râmdâs, and after distributing a great deal of money in alms, he marched to Lâhôr.

38. After the Mahârâjâ had thus strengthened the bonds of friendship between his own and the English Government, certain disloyal vassals again refused to pay the customary tribute. Accordingly he determined first to send to Ḍerâ Ghazî Khâṅ his heir apparent, with the brave Frenchman Ventura, instructing them to regulate affairs there and then to attack the Nawâb of Bahâwalpûr, who, if he paid tribute, was to be confirmed in his post, otherwise he was to be removed therefrom. The heir apparent was then ordered to march also to Sind to realise tribute from the Amîrs of that province; whilst the Sardâr Harî Singh was to go to Peshâwar to exact the same from the proud Sultân Khâṅ, and, the Yûsufzâis of that region being a stiff-necked race, he was told to deal with them severely.

Accordingly Kharak Singh and Ventura advanced with their troops first to Ḍerâ Ghâzî Khâṅ, subjugated the rebels and obtained the tribute. When they arrived in the province of Bahâwalpûr, which was likewise in a state of rebellion, the Nawâb became so frightened that he immediately paid the required sum of money. Then the heir-apparent marched to Sind and reached Sakhar (Sukkur) where he likewise collected from the Amîrs all the tribute he was able to extort, and returned victoriously to Lahôr to his father, who congratulated him on what he had accomplished.

A courier now suddenly arrived from Bahâwalpûr with the news that the Nawâb had thrown off his allegiance, and had placed himself under the protection of the English, whose vassal he had become; Mr. Wade having accepted his submission and given him a *sanad* to that effect: moreover the Governor-General had sent the Indian army to conquer Sind. The Mahârâjâ was enraged on the reception of this news, but, as he desired to remain on good terms with the British Government, he took no further notice of the matter, and wrote no letter of remonstrance to the Governor-General.

Meanwhile the Sardâr Harî Singh had punished the Yûsufzâis, but had been waiting four months near Pêshâwar hoping that Sultân Khâṅ would at last pay his tribute. The latter's forces, however, being twice as numerous as those of Harî Singh, he was in no haste to comply, so the Sardâr complained to Ranjît Singh, who consulted his darbâr on this subject, the members of which arrived at the conclusion, that there being no doubt of Sultân Khâṅ's disloyalty, and of his sympathy for the Kâbul Government, he ought to be attacked and Pêshâwar conquered. The Mahârâjâ accordingly ordered the Prince Naunihâl with Ventura, and another officer named Court, as well as Têj Singh, forthwith to march with numerous troops to Pêshâwar. When they reached the vicinity of that fort, Sultân Khâṅ, trembling with fear, sent an envoy to meet the prince and to express his amazement at the intention of attacking one who was so loyal to the Mahârâjâ as himself, and not only ready to pay tribute, but prepared to sacrifice his life for him. The prince, however, sent the reply that he was merely the servant of the Mahârâjâ whose orders he had come to execute, and that if Sultân Khâṅ was willing peaceably to surrender Pêshâwar, his life would be spared, but not if he refused to do so. Irresolute whether to yield or to resist, the perplexed Governor of Pêshâwar asked in a letter assistance from Dôst Muhammad, but Kâbul being at that time in a great state of disturbance, it could not be

given; so he surrendered his treasury, and ceded his post to the prince, who then treated him kindly and himself assumed the Government, carrying on the administration with such leniency towards the Afghâns, that the whole province became loyal to the Mahârâjâ, who for this bestowed a costly robe of honour upon the prince. *(To be continued.)*

CORRESPONDENCE.

THE YAVANAS OF ORISSA.

To the Editors of the Indian Antiquary.

SIRS,—Sir W. W. Hunter in his work on Orissa refers to the attacks continually made upon the shores of Bengal during the 7th, 8th and 9th centuries by Pirates called Yavanâs. Who were these Yavanas? They can have had nothing to do with the Yavanas of the Epics,—the Greeks and their descendants in Bactria, who were not a maritime people, and lived too far away back in space and time to have troubled Orissa at this period. May I suggest that they were Malays from Java? Java we now know from the Camboja inscriptions was subject to the Cambojan kingdom in the 7th century; and as far as the evidence points, and it accumulates rapidly, it received its Hinduism at that very time, not from India but from Camboja; and it would seem to have been a very active period of Malay energy.

Yours etc.,

HENRY H. HOWORTH.

MISCELLANEA.

CURIOSITIES OF INDIAN LITERATURE.

A QUAINT BLESSING.

The following blessings were collected by me in Mithilâ. They are much admired by the Paṇḍits:—

I.

गजोत्पले हरिभुजामिह के शवस्य
यस्योरसीन्दुरदनं हि जटाकलापे ।
शं खाम्बरो हि पवनादरिनाथसूनुः
कान्तागशोऽगतनया विपुलं ददातु ॥

'May he—who sleeps on a mountain (अगशो—*i.e.* Śiva), whose (यस्य) beloved is the Daughter of the Mountain (अगतनया—*i.e.* Pârvatî), whose garment is the ethereal void (खाम्बरो), whose son is the lord (*i.e.* Kumâra) of the enemy (*i.e.* the peacock) of the eaters of air (*i.e.* serpents), on whose breast (उरसि) is the king (राजा—*i.e.* Vâsuki) of the eaters of frogs (हरिभुजाम्—*i.e.* snakes), whose repast (अदनम्) is on the fleshless (उत्पले) head (के) of a corpse, and on the top-knot of whose matted hair (जटाकलापे) is the moon (इन्दुः)—give thee abundant prosperity.'

G. A. GRIERSON.

BOOK NOTICE.

CONTES ET LEGENDES ANNAMITES, par A. LANDES, Saigon, Imprimerie Coloniale, 1886, pp. viii. 392 in 8vo.

This collection of Annamite tales and legends, published first in the *Excursions et Reconnaissances* (Nos. 20-23, 25, 26) will be welcome to all students of Folklore, and more especially to those interested in Annamite ideas and manners. Popular tales are the same everywhere; and what is special to the Annamite Folklore is that it is essentially local; every rock, every pagoda has its own legend. M. Landes thinks that the Indo-Chinese popular literature has come from abroad. And several of the tales he has gathered do look more like a summary analysis of a foreign tale picked up by chance, than a national creation. But their strict localisation makes them valuable for a knowledge of the Annamite history and customs.

In this connection, we may aptly notice here the *Index des caractères Chinois contenus dans le Dictionnaire Chinois-Anglais de Williams, avec le prononciation Mandarine Annamite* par M. Phan-duc-hoa, Saigon Collège des Interprètes, 1886, pp. 449-193 in 4to.

This index, done by a *lettré* of the Collège des Interprètes at the suggestion of M. Landes, will be of great practical utility, as it gives for each Chinese character its Chinese Mandarin pronunciation, both according to Williams and the Shanghai Jesuit pronunciation, and its Cantonese pronunciation, as well as the Annamite Mandarin. It will be not less useful for comparative philology, as it will help us to establish the laws of permutation between the Chinese and the Sinico-Annamite, and, by recognising thus better what in the Annamite is of Chinese origin, to sift out the specially Annamite element.

A BUDDHIST STONE-INSCRIPTION FROM SRAVASTI, OF [VIKRAMA]-SAMVAT 1276.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

I EDIT this inscription from two good rubbings supplied by Mr. W. Hoey, B.C.S., and forwarded to me by Mr. Fleet. The stone which holds the inscription was found by Mr. Hoey at **Sêṭ-Mahêṭ**,[1] the ancient **Śrâvastî**; "in the Jetavana mound, in the ruins of an essentially Buddhist building with monastic cells; in a stratum which indicated that it had been placed in a restored building."

The inscription consists of 17 full lines, and one short line containing merely the date. The **writing** covers a space of about 2′ 8½″ broad by 1′ 2½″ high, and is throughout well preserved.—The **size** of the letters is from ½″ to ¾″.—The **characters** are Dêvanâgarî, and there is nothing remarkable about them except that the *anusvâra*, instead of being written *above* the *akshara* after which it is pronounced, is 11 times written *after* it, with the sign of *virâma* below the *anusvâra*.—The **language** is Sanskrit, and except for the introductory blessing and the date at the end, the inscription is in verse. The name of the composer of the verses is Udayin (line 17). From a grammatical point of view I may draw attention to the wrong form *avamanya*, line 1; to the wrong compound *tatpaṁchamaḥ*, line 10; and to the unusual derivatives *jaunîna*, line 7, and *udaraṁbharîṇa*, line 14.—In respect of **orthography** I would note the employment of the dental for the palatal sibilant in *saṁsara*, line 1, *sâkya*, line 1, *vaṁsé*, line 3, *atisâyi*, line 3, *sakuni*, line 4, *vaṁsa* line 5, *subhrair*, line 5, *paṁchasata*, line 10, *vahaso*, line 15, and *prasastim*, line 17; and the fact that *ba* is throughout denoted by the sign for *va*.

The inscription is **dated** in the year [of the Vikrama era] 1276, corresponding to A.D. 1219-20, and is of some interest as showing that Buddhism had not become extinct in northern India in the first half of the 13th century A.D. For it records that a certain Vidyâdhara, son of Janaka, and grandson of Bilvaśiva, of the Vâstavya family, established a convent for Buddhist ascetics at the town where the inscription was originally put up. Janaka, the father of Vidyadhara, is described (line 8) as the counsellor of **Gôpâla**, ruler of **Gâdhipura** or Kânyakubja; and Vidyâdhara appears to have held a similar position under the prince **Madana** (line 13), probably a successor of Gôpâla. The town where the convent was established, is called **Jâvṛisha** (or possibly Ajavṛisha); it is said to have been built by Mândhâtâ, of the solar race, and to have had "its protection entrusted to **Karkôṭa**."

We know that **Jayachchandra** of Kanauj was defeated and Kanauj taken by the Muhammadans in A. D. 1193; and it is therefore interesting that our inscription, like another inscription pointed out by Sir A. Cunningham, *Archæol. Survey of India*, Vol. XI. page 128, should speak "of the Hindu kingdom of Kanauj as if it were still in existence."

The place **Jâvṛisha** (or Ajâvṛisha) mentioned in the inscription, I am unable to identify at present. In my opinion, there is just a possibility that it may be Jaunpur or some place close to it. According to Sir A. Cunningham, *loc. cit.* pp. 103 and 104, Jaunpur had an older name which is as yet unknown; there is near it a fort overhanging the river which was called **Karârkôṭ**; and "four miles to the south-east of Karârkôt, on the site of the present Zafarâbâd, stood the palace of the later kings of Kanauj, with whom this was a favourite residence." But my difficulty is that Jaunpur is about 130 miles distant from the place where the inscription was actually found.

[1] Ordinarily written *Sâhêt-Mahêt*, see e.g. *Archæol. Survey of India*, Vol. I. page 333; Beal, *Si-yu-ki*, Vol. II. page 1; Legge, *Fa-hien*, page 55. The above spelling I owe to Mr. Hoey, who writes as follows: "Our earliest settlement inquiries found the Jetavana mound named *Sêt* सेट, and the city mound *Mahêt* महेट. This too is the spelling adopted by local Pandits and by Patwâris who write Hindi. The form *Sahêt-Mahêt* (सहेट महेट) is a corruption for the sake of the rhyme. It is curious that some Nepalese who visited the ruins while I was excavating, called the place *Mahes* (महेस)." On the map of the ruins of Srâvastî, *Archæol. Survey of India*, Vol. I., Plate L., *Mahêt* is given as the name of the Jetavana Monastery mound, and *Sahêt* as the name of the town.

TEXT.[2]

1 Ôṁ namô Vîtarâgâya ‖ Mârân[3]=ashṭa niyamya dikshv=adhipatîn=âyôjya sat[t*]v-ôdayê durllaṁghyâṇy(ny)=avamanya[4] Sa(śa)ṁva(mba)ra-ripôr=âjñ-âksharâṇy=âdṛitaḥ ‖ uddharttuṁ yatatê sma yaḥ karuṇayâ śrî-Sâ(śâ)-

2 kya-siṁhô jagad=vô(bô)dhiṁ prâpya cha Vu(bu)ddhatâm=abhigataḥ sa tvâṁ paritrâyatâṁ ‖ Saṁsâr[5]-âṁbhôdhi-târâya Târâm=uttâra-lôchanâm । vandê gîrvvâṇa-vâṇînâṁ Bhâratîm=adhidêvatâm ‖

3 Mâṁdhat[6]-âkhyaḥ śatru-jich=Chhakra-tulyô vaṁsê(śê) Bhânôr=bhânu-têjô-tisâ(śâ)yî । nity-ânandî sâdhu bhôktâ trilôkîṁ râjñâm=âdyaś=chakravarttî va(ba)bhûva ‖ Svêchchhaṁ[7] bhrâmyan=kadâchit=sara-

4 siruha-rajô-râji-chitrîkṛit-âmbhaḥ samyag=dṛishṭvâ sarô=ntar-madakala-sa(śa)kuni-vrâta-râv-âbhiramyaṁ । karttuṁ kîrttêr=vitânaṁ sucharita-muditô mṛidbhir=âpûrya yatnât=**Karkkôṭ**-âdhîna-ra-

5 kshaṁ sva-puram=idam=athô nirmamê **Jâvṛish**-âkhyaṁ ‖ Tasminn[8]=abhûvan=dhaninô=tidhanyâḥ śrî-pûrvva-**Vâstavya**-kula-pradîpâḥ । ady=âpi yad-vaṁsa(śa)-bhavair=yaśôbhir=jjaganti su(śu)bhrair=dhavalî-

6 kriyantê ‖ Têshâm[9]=abhûd=abhijanê jaladhâv=iv=êndur=iṁdu-dyutiḥ prathita-**Vi(Bi)-lvaŝiv**-âbhidhânaḥ । yasya Smarâri-charaṇâṁvu(mbu)ja-vatsalasya lakshmîr=dvijâti-sujan-ârthijan-ôpabhô-

7 gyâ ‖ Saujany[10]-âṁvu(mbu)nidhêr=udâra-charita-pratyasyamân-ainasaḥ sâdhûnâm=uday-aika-dhâma jananî-sthânaṁ śriyaḥ sat[t*]va-bhûḥ । tasy=âsîj=**Janakô** janîna-hṛidayaḥ putraḥ satâm=**a**-

8 **graṇîr**=mânyô **Gâdhipur**-âdhipasya sachivô **Gôpâla**-nâmnaḥ sudhîḥ ‖ Tên=[11]ôchchakair-abhijan-âmvu(mbu)nidhêḥ prasûtâ Lakshmîr=iv=âchyuta-vibhûshaṇa-kânta-mûrttiḥ । ânanda-kanda-ja-

9 nanî jananî-kulânâṁ **Jijj**=êti saṁbhṛita-kulasthitin=ôpayêmê ‖ Tâbhyâm[12]=abhûvaṁs=tanayâḥ shaḍ=êva shaḍbhir=mukhair=êka-tanur=ya êkaḥ । jyâyân=sutaḥ Pippaṭa-nâmadhê-

10 yô dhîmân=iv=Âgni-prabhavaḥ Śivâbhyâṁ ‖ Tat[13]-paṁchamaḥ **Paṁchasa(śa)r-ânukârî** tayôs=tanûjô=tanu-kîrtti-kandaḥ । vidy-âvavô(bô)dhâd= anukîrttyatê yô **Vidya-dharô** nâma yathârtha-

11 nâmâ ‖ Rasâdhikam[14]=abhivyâpi Giriśa-charaṇ-âśritaṁ । haṁs=îva mânasaṁ yasya jahati sma na Bhâratî ‖ Mâdhuryaṁ[15] madhunô mudhâ himaruchêr=ânanda-mêdhâvitâ mi-

12 thy=aiv=âṁvu(mbu)nidhêr=ggabhîrima-guṇas=tuṁgatvam=adrêr=alaṁ । yasy=aikaika-guṇ-âdhirôhaṇa-girêḥ saujanya-sâṁdr-ôl[l*]asat-pîyûsh-aika-nidhêr=gguṇêna guṇinaḥ sarvvê=py=adhaś=chakrirê ‖ Yasmai[16]

13 gaj-âgama-rahasya-vidê gajanâm=ânandanîṁ kalayatê dhuram=uddhurâya । bhûpâla-mauli-tilakô **Madanaḥ** pradâna-mân-âdibhiḥ kshitipatiḥ spṛiyahâṁ-va(ba)bhûva । Dêvâ-

14 layaiḥ prathayatî nija-kîrttim=uchchaiḥ pushya[d*]-dvija-vrajam=udêtum=alam=va(ba)-bhûva । yên=ârjjitaṁ draviṇam=ârttajan-ôpakâri jîvâtu-sambhṛita-mudâm=udaram-bharîṇaṁ ‖ Sat[t*]va[17]-sârtha-pa-

15 ritrâṇa-kṛita-kâyaparigrahaḥ । abhûd=a-bhûtapûrvô=yaṁ Vô(bô)dhisat[t*]va iv=âparah । Âtmajñâta(na)[18]-kṛitôday[ê]na vigalad-râgâdi-dôsh-âśraya-prôdgachchhan-manasâ vichârya va(ba)husô(śô)

---

[2] From the rubbing. [3] Metre, Śârdulavikrîḍita. [4] Read *avamatya*. [5] Metre, Ślôka (Anushṭubh). [6] Metre, Śâlinî. [7] Metre, Sragdharâ. [8] Metre, Upajâti. [9] Metre, Vasantatilakâ. [10] Metre, Śârdulavikrîḍita. [11] Metre, Vasantatilakâ.

[12] Metre, Indravajrâ. [13] Metre, Upajâti. [14] Metre, Ślôka (Anushṭubh). [15] Metre, Śârdûlavikrîḍita. [16] Metre, Vasantatilakâ; and in the next verse. [17] Metre, Ślôka (Anushṭubh). [18] Metre, Śârdûlavikrîḍita.

16 madhyasthatâṁ Saugatê[1*] têu=ârâdhita-satpathêna yaminâm=ânanda-mûl-âlayô nirmm[â*]py=ôtsasṛijê vihâra-vidhinâ kîrttèr=iv=aik-âśrayaḥ ‖ Sadvô(dbô)dha[19]-vaṁdya-chari-

17 tasya nay-aika-dhâmnaś=chaṁdr-âvadâta-hṛidayaḥ sumatiḥ kalâvân । asya priyêshu nirataḥ subhagaṁbhavi[sh]ṇuḥ samva(mba)ndha-va(ba)ndhur=**Udayî** vidadhê prasa(śa)stim ‖

18 Saṁvat 1276[‖*]

TRANSLATION.

Ôm!

Adoration to him who is free from passions!

May the illustrious Śâkya lion protect you! —he who, having at the rising of truth (*first*) restrained the eight Mâras, (*and then*) attracted to himself the lords over the regions,[20] having treated with contempt the difficult-to-be-transgressed words of command of the enemy Śambara, full of zeal through compassion exerted himself to deliver the world; and who, having reached the Bôdhi-tree, attained the *status* of a Buddha!

To cross the ocean of worldly existence, I adore the saving Bhâratî, whose eyes have protruding pupils,[21] the goddess presiding over the utterances of the gods.

(L. 3).—In the race of the Sun there was, surpassing the splendour of the sun, the universal sovereign, the first of kings, named Mândhâtâ,[22] conquering the enemies, equal to Indra, ever gladdening, well protecting the three worlds.

Once upon a time roaming about at his pleasure, he saw a pleasant lake whose waters were variegated with lines of the pollen of lotuses, (*and which was*) charming with the cries of flocks of sweetly singing birds in it; and having strenuously filled it with earth, he, who delighted in good conduct, to make a canopy for his fame, then built this town of his, named **Jâvṛisha**,[23] the protection of which was entrusted to **Karkôṭa**.

(L. 5).—In it there were wealthy (*and*) very fortunate (*people*), lights of the illustrious[24] **Vâstavya** family, by the splendid fame of whose race the worlds are rendered white even now.

As the moon (*is born*) from the ocean, so in their family there was (*a personage*), shining like the moon, whose name **Bilvaśiva** was famous: devoted as he was to the lotus-feet of (Śiva) the enemy of the god of love, his wealth was an object of enjoyment to the twice-born, to virtuous people, and supplicants.

(L. 7).—He, an ocean of benevolence, who was counteracting sin by his noble conduct, had a son **Janaka**, a unique home of the elevation of the good, a birthplace[25] of fortune, a site of goodness, with a heart kind to people,[26] the foremost of the good, the honoured wise counsellor of the ruler of **Gâdhipura**,[27] named **Gôpâla**.

He, who well maintained the prosperity of his family, married the daughter of a noble race, named **Jijjâ**, who was causing joy[28] to her mother's family, (*and who*), inasmuch as her lovely body possessed imperishable ornaments, was like Lakshmî, born from the ocean, whose lovely body beautifies Achyuta (Vishṇu).

(L. 9).—From these two there were born no less than six sons, just as the intelligent progeny of fire called Pippata, who one, with one

---

[19] Metre, Vasantatilakâ.

[20] Compare Kern, *Buddhismus*, German Ed. Vol. I. pp. 88, 89. It is difficult to say why the author of the verse should speak of *eight* Mâras; the number eight would be more appropriate for the guardians of the four regions and the four intermediate regions.

[21] The original contains a play on the word *târâ*; and there is clearly an allusion to the *Târâs*, or wives (*śaktis*), of the Dhyâni-Buddhas, one of whom is called Lôchanâ. See Kern, *ib.* Vol. II pp. 215 and 216; and *e.g.*, *ante*, Vol. X. p. 187.

[22] *Mândhâtâ*, of course, is the Nom. case of *Mândhâtṛi*; but we have the same form, instead of the base of the word, in *Mândhâtâ-pura*.

[23] In the original, the name may be either *Jâvṛisha* or *Ajâvṛisha*.

[24] *Śrî-pûrva-* I take in the sense of *śrî-yuta*, or simply *śrî*. A *śrî-Vâstavya-mahâvaṁśa* we find *e.g.* in the Mahôba inscription, of Samvat 1240, *Arch. Survey of India*, Vol. XXI Plate XXII line 12, and in another Mahoba inscription, *ib.* Plate XXIII line 12; and a *Vâstavya-vaṁśa* in line 27 of an unedited Malhâr inscription of Chêdi Saṁvat 919.

[25] *Janma-sthâna* I take to be used in the sense of *utpatti-sthâna*.

[26] The word *janîna* I cannot find anywhere else; it is formed from *jana*, as *viśvajanîna* (*i.e.*, *viśvajanebhyô hitam*) is from *viśvajana*. See Pâṇini V. 1 9.

[27] Gâdhipura is Kanyakubja. See *ante*, Vol XV. pp 8, 11, etc.

[28] One of the two words *kula-jananî* is superfluous; Jijjâ may be called *kul-ânandana* (see *e.g.* *ante*, p. 202, line 1), or *ânanda-jananî*.

body, is endowed with six faces, (*was born*), as the elder son, from Śiva and his consort.[29]

Their fifth son of those[30] (*six*), resembling the five-arrowed (Kâma), (*and*) the root of no slight fame, who is celebrated for his knowledge of wisdom, is named, with an appropriate name, **Vidyâdhara,** 'the holder of wisdom.'

(L. 11.)—Whose comprehensive mind, full of taste (*and*) attached to the feet of Śiva, Bhâratî (the goddess of eloquence) never abandoned, just as the swan never leaves the extensive Mânasa lake, full of water (*and*) situated at the foot of the lord of mountains (Himâlaya).

Vain is the sweetness of honey (*and*) the proficiency in (*creating*) joy of the cool-rayed (moon): a sham indeed is the quality of depth of the ocean (*and*) the height of the mountain: —(*but*) enough! by the excellent qualities of this mountain for the ascent of every single excellency, of this unique receptacle of the abundant sparkling nectar of benevolence, everything whatever that is endowed with excellent qualities has been surpassed!

Him, who knew the secret doctrine regarding elephants, (*and*) who, unrestrained, bore the burden of elephants that was causing pleasure (*to him*), the head-ornament of princes, the lord of the earth, **Madana**, sought to attach to himself by gifts, honours, and so forth.

(L. 13).—The wealth acquired by him, who spread his fame aloft by (*building*) temples,—(*wealth*) which gave relief to people in distress, (*and*) filled the bellies[31] of those filled with joy at (*the receipt of*) food,—was sufficient to exceed the multitude of the twice-born supported (*by it*).

He was as it were another Bôdhisattva, such as had never existed before, having assumed a human body for the protection of the multitude of living beings.

(L. 15).—Elevated by the knowledge of the soul, (*and*) with a mind rising above the attachment to passion and other sins of which he was getting rid, having again and again pondered on the indifference towards the doctrine of Sugata, he, having resorted to the good path, caused to be built and granted to the ascetics, after the manner of convents, a dwelling causing joy, a unique home as it were of (*his own*) fame.

Taking delight in whatever is dear to him, the unique home of prudence, whose conduct is an object of adoration for people of true knowledge, **Udayin**, (*his*) kinsman by association, whose heart is pure like the moon (*and who is*) wise (*and*) accomplished (*and*) becoming prosperous, has composed (*this*) eulogy.

The year 1276.

THE RUPEES OF THE SURI DYNASTY.

BY CHAS J. RODGERS, M.R.A.S., &c.

Marsden in the *Numismata Orientalia Illustrata* gives figures of six **Sûrî rupees,** and Thomas in the text and plates of his *Chronicles of the Pathán Kings of Dehli* gives figures of seven. So, when some years ago I came across my first Sûrî rupee, I determined to collect a complete set from the first year of **Shêr Shâh** to the return of **Humâyûn**, *i.e.*, from 945 A.H. to 962 A.H., and in my *Supplements to the Chronicles* above mentioned, I have already published a rupee of **Sikandar Sûr** dated 952 A.H., Lahore mint, and an eight anna piece of **Ibrâhîm Sûr**. I have also published a full rupee of Humâyûn struck shortly after his return at the end of 962 A.H.

None of these coins were my own; but the rupees in the accompanying plates were **all collected by me** in the *bázárs* of the **Pañjâb**, though they, too, are no longer in my own cabinet, but in that of the Government Central Museum, Egmore, Madras. However, Dr. Bidie, who was Curator of that Institution when I parted with them, kindly allowed his artist to draw them for me. And, as few collectors in India possess so complete a set, perhaps the readers of this Journal will be glad to see these Plates, in order that they may observe the variety and beauty of the rupees issued by the Sûrîs during the absence of Humâyûn from India, and thus obtain an idea of

[29] From this verse it appears that Pippata is another name of Skanda or Kârttikêya. The writer, though he makes Kârttikêya the son of Śiva and Pârvatî, at the same time alludes to the legend according to which Kârttikêya was son of Śiva without the intervention of his wife, Śiva's generative energy being cast into a fire.

[30] *Tat-pañchama* is an irregular compound.

[31] *Udarambhara*, which is not found in the dictionaries, is used in the sense of *udarambhari*.

the improvements made by these interlopers.

A good history of the Sûrî Dynasty has yet to be written. In Akbar's time they were not only neglected, but were written against, though most of the improvements in coinage fathered on **Akbar** may with greater truth claim a Sûrî paternity. Without discussing this question now, I would simply state that **for many years before the advent of Bâbar rupees had not been coined** in Indian mints. The **Lôdî Family** coined neither silver nor gold, but mixed silver and copper, weighing about 140 grains; some of their coins having as much as 32 grains of silver in them, while others had only a little more than one. How business with such a coinage was ever transacted, I cannot imagine. And, when **Bâbar** came, he went on striking in India the silver *tankahs* of Turkistân, each of which weighed about 60 grains. His son **Humâyûn** followed his example before he was expelled the country, and not until his return did he strike rupees;—only two, however, of which are now known, one of 962 A.H. and one of 963. **Akbar** again at the commencement of his reign struck the old silver *tankahs* introduced by his grandfather. One of them is given by Mr. Thomas, p. 383 of the *Chronicles of the Pathân Kings*, and I have a fuller one, which gives the place of mintage as Lâhôr. These are the only two known. But he must have soon reverted to the custom of the **Sûrîs**, as I have full rupees of every year of his reign beginning with 963 A.H., and ending with his 50th Ilâhî year. Thus we see that the rupees reintroduced by **Shêr Shâh,** became the standard of the Mughal Empire, and also of that of the British Indian Rule.

The rupees depicted in the plates attached to this paper have now become exceedingly scarce, and are seldom met with in any *bázár* of the Pañjâb. Lately, during a tour of six months, I obtained but two of **Shêr Shâh** and two of **Islâm Shâh**. But, by way of compensation, I obtained four rare copper coins of **Ibrâhîm Sûr** and two of **Sikandar Sûr**, both of which are extremely rare.

The British Museum has rupees of every year of these kings, and possesses one of Sikandar, a treasure I was never able to obtain. I believe the Madras Museum is the only one in India which possesses a complete set as far as **Muhammad Sûr**. No rupee of Ibrâhîm has as yet been found and no gold coin of either Muhammad or Ibrâhîm or Sikandar has yet been seen. Indeed only one is known of Islâm Shâh, and that I found at Amritsar some years ago. It is square, and I parted with it to my old friend, Sir Alexander Cunningham.

There is no proper account of the coins of the Sûrî Dynasty, though their **copper coins** are of great variety and beauty. They were struck all over the south of the Pañjâb and Hindustân proper, and were imitated by **Akbar**, **Jahângîr** and **Shâh Jahân**. Their numbers were so vast that the revenue of the country was estimated in them under the name of *dáms*. I hope some day to give a complete description of these copper coins, as my own cabinet is particularly rich in them, and, as, amongst the 400 coins I lately obtained for Government during my tour, are some very rare specimens.

Before sending the rupees now illustrated to Madras, I neglected to weigh them. The weights of them given by Mr. Thomas vary from 163 to 176 grs., and the weights of those I obtained on tour were about 170 grs. each.

The inscriptions on the rupees as far as they can now be deciphered are as follows:—

(*a*). SHER SHAH.

No. 1. *Obverse*: Square area. سلطان خلدالله ملکه ٩٤٦ شیرشاه श्री शेर शाह

Margin: ضرب گوالیار

Reverse: Square area. The Kalimah.

Margin: Probably names and titles of the four Companions of Muhammad.

No. 2 *Obverse*: Square area. Same as in No. 1 but year ٩٤٧ श्री शेर शाह

Margin: Illegible.

Reverse: The Kalimah and السلطان العادل

Margin: Illegible.

No. 3. *Obverse*: Square area. Same as No. 2 but with و سلطانه added.
Margin: Illegible. श्री शेर शाह
Reverse: Same as No. 2.
Margin: Illegible.

No. 4. *Obverse*: Square area شير شاه سلطان خلد الله ملكه ٩٤٨ and name in Hindî.
Margin: السلطان العادل ابو المظفر فريد الدنيا والدين ضرب آگره
Reverse: Square area. The Kalimah.
Margin: Names and titles of the Four Companions of Muḥammad.

No. 5. *Obverse*: شيرشاه سلطان خلد الله ملكه و سلطانه ٩٤٩ name in Hindî. श्री शेर शाह
Margin: فريد الدنيا والدين ابو المظفر جهان پناه
Reverse: Kalimah and السلطان العادل
Margin: عثمان , علي , ابوبكر , عمر

No. 6. *Obverse*: Same as No. 4.
Margin: ابو المظفر فريد الدنيا والدين . . . ضرب دهلي
Reverse: Kalimah.
Margin: ابوبكر الصديق , عمر الفاروق , عثمان العفان , علي المرتضى

No. 7. *Obverse*: Same as No. 4 in double square.
Margin: فريد الدنيا والدين ابو المظفر ضرب شير گره ٩٤٨
Reverse: Kalimah in double square.
Margin: Same as 6 but عثمان ذي النورين श्री शेर शाह

No. 8. *Obverse*: In circle. Same as in No. 5.
Margin: ٩٤٩ श्री शेर शाह فريد الدنيا والدين ابو المظفر
Reverse: In circle. Kalimah.
Margin: ابابكر عمر عثمان علي السلطان العادل

No. 9. *Obverse*: In circle. Same as in No. 5.
Margin: Same as in 8 but with one word additional.
Reverse: In circle Kalimah.
Margin: Names of the Four Companions and السلطان العادل and ضرب اجين

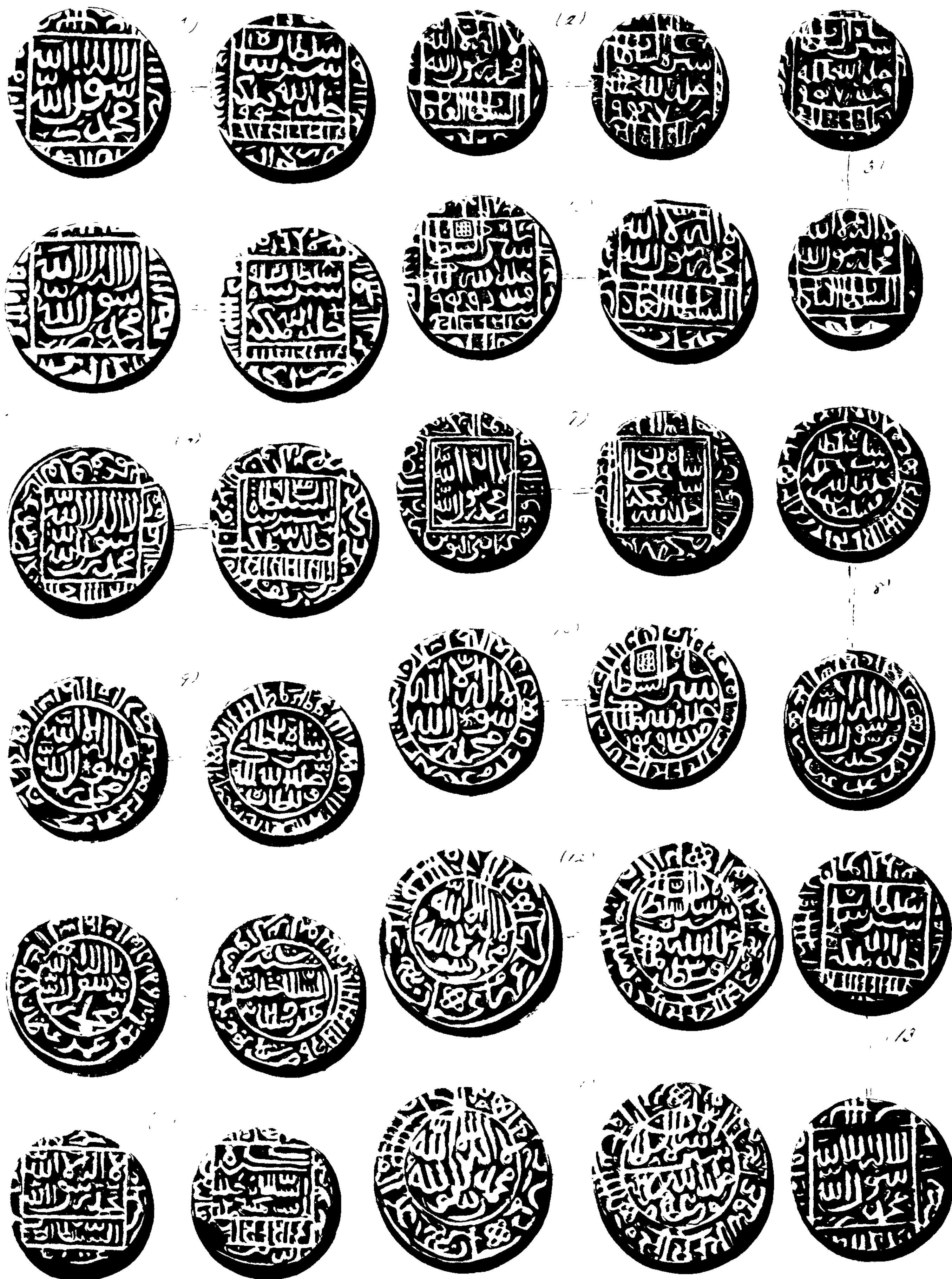
No. 10. *Obverse*: In circle. Same as No. 5. ٩٤٩
Margin: श्री शेर शाह فريد الدنيا والدين ابو المظفر جهان پناه
Reverse: In circle. Kalimah.
Margin: Same as No. 8.

No. 11. *Obverse*: In circle. Same as No. 5. but no date.
Margin: ٩٥٠ श्री शेर शाह ضرب ستگدو فريد الدنيا والدين ابو المظفر
Reverse: In circle. Kalimah.
Margin: Same as in No. 8.

No. 12. *Obverse*: In circle. Same as in No. 5, but date in margin.
Margin: Same as in No. 11.
Reverse: In circle. Kalimah.
Margin: same as in No. 8.

No. 13. *Obverse*: In square. Same as No. 1 but date ٩٥١ name in Hindî.
Margin: Mint obliterated السلطان العادل ابو المظفر
Reverse: Kalimah, in square.
Margin: Names and titles of Four Companions of Muḥammad.

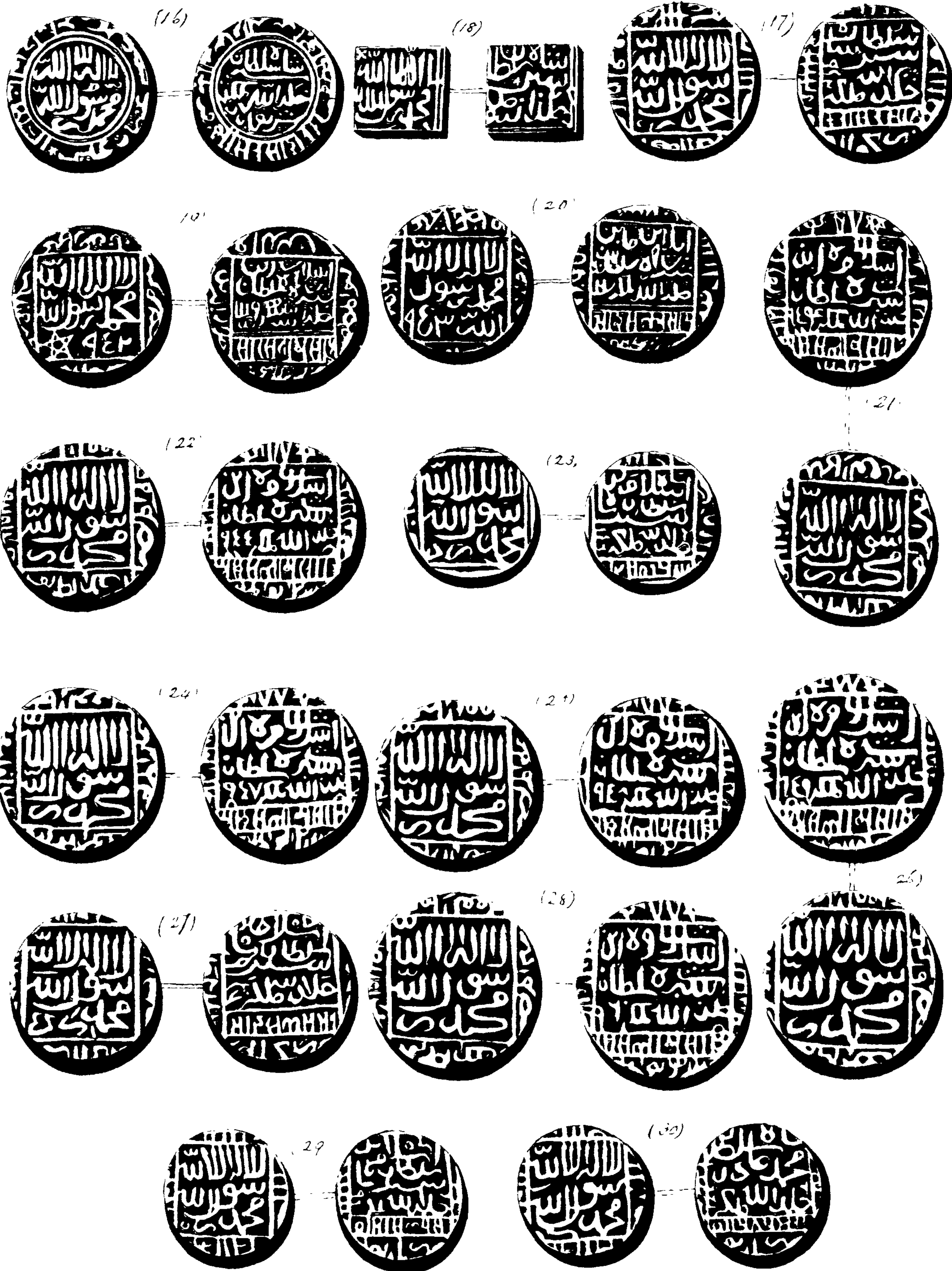
No. 14. *Obverse*: In square Same as No. 1 and year ٩٤٦ name in Hindî.
Margin: فريد الدنيا والدين ابو المظفر
Reverse: In square. Kalimah. السلطان العادل
Margin: ابوبكر , عمر , عثمان , علي



C. J. RODGERS.

W. GRIGGS, PHOTO-LITH

Plate 2.



C. J. RODGERS.

No. 15. *Obverse and margin*: Same as No. 12 but with year ٩٥١
Reverse and margin: Exactly the same as No. 12.
These two rupees, Nos. 12 and 15, are 1·32 inches in diameter. They are much larger than any in the British Museum. It is a pity they have no mint on them.

No. 16. *Obverse*: In circle (double). شیرشاہ سلطان خلداللہ ملکہ شریفاباد
Margin: श्री शेर शाह ٩٥١ فریدالدنیا والدین ابوالمظفر
Reverse: In double. Kalimah.
Margin: Same as No. 8.

No. 17. *Obverse*: In square. Same as No. 1 but year ٩٥٢
Margin: Same as No. 1; mint *Gwáliár* گوالیار

No. 18. *Obverse*: Same as in No. 1.
Reverse: Kalimah.
There are no margins to this coin. I have a strong suspicion that it is of modern manufacture. The square coin in the British Museum is an impudent forgery. There are many gold *mohars* of Shêr Shâh in the market, but they are all forgeries.

(*b*). ISLÂM SHÂH.

No. 19. *Obverse*: In square اسلام شاہ ابن شیرشاہ سلطان خلداللہ ملکہ و سلطانہ
श्री इसलाम शाह
Margin: جلال الدنیا والدین ابوالمظفر ضرب سنگانو
Reverse: In square. Kalimah. ٩٥٢ and ✡
Margin: Names and titles of four Companions of Muḥammad.

No. 20. *Obverse and margin*: Same as in 19; same mint. Satgâṅv.
Reverse and margin: Same as in 19 but year ٩٥٣ and sign omitted.

Nos. 21, 22, 24, 25, 26, 28 are all of the same type but of years ٩٥٤, ٩٥٥, ٩٥٧, ٩٥٨, ٩٥٩, and ٩٦٠ respectively.
Obverse: In square year, and اسلام شاہ ابن شیرشاہ سلطان خلداللہ ملکہ
Margin: In no case legible. But it all reads from the outside. What seems to be ٤٧٧ is I am persuaded not figures, but words, which are followed by a six-rayed star.
Reverse: In square. Kalimah.
Margin: Names and titles of the Four Companions of Muḥammad.

No. 23. *Obverse*: In square. اسلام شاہ بن شیرشاہ سلطان خلداللہ ملکہ ٩٥٦
Margins: Obscure, not like Nos. 21, 22, &c.
Reverse: Kalimah. in square.
Margins: Only portions visible.

No. 27. *Obverse*: Same as No. 23, but year ٩٥٦ in different style of figures.
Margin: Gives ضرب گوالیار
Reverse: In square. Kalimah.
Margins· Very much cut.

No. 29. *Obverse*: same as in No. 23.
Margin: ضرب نارنول partly visible.
Reverse: In square. Kalimah.
Margin: Same as in No. 27.

(*c*) MUHAMMAD SHÂH.

No. 30. *Obverse*: In square. محمود شاہ سلطان عادل خلداللہ ملکہ ٩٦١
Margin: Obscure, but portions of ضرب نارنول visible.
Reverse: Kalimah, in square. श्री महमद शाह
Margin: illegible.

From a careful perusal of the above coins it will be seen that all conform to **one type.** The name of the king is in the square or circle of the obverse, and is repeated in Nâgarî letters, so that conquerors and conquered might read it. The square coin about whose genuineness I have doubts is the only one without margins, and the rupee of Sikandar has not the name in Nâgarî.

Any one taking up a rupee of the Sûrî dynasty should at once recognize its type; and it is the study of typical coins and inscriptions which enables us at once to assign a coin approximately. I write this because in Major Raverty's translation of the *Tabaqát-i-Násiri* I find he has been imposed upon by some ignorant native author, who has invented a series of coins of the later **Kings of Ghaznî** and of the early **Paṭhân Sultâns** of Dehlî, but who, being ignorant of the **types** of the coins of these kings, has foisted on the learned translator a number of mongrel inscriptions made up of parts of inscriptions on the coins of Aurangzêb and his successors, and a series of titles made up from his own inner consciousness. Strange to say Major Raverty prefers this work to that of the late learned Mr. Thomas! Had he studied the types given by Mr. Thomas he would have escaped being imposed on.

NOTES ON THE GIPSY TRIBES OF THE NORTH-WEST PROVINCES AND OUDH.

BY WILLIAM CROOKE, B.C.S.

The following notes, in which an attempt will be made to bring together a considerable portion of the scattered information we possess as to the **Criminal and Wandering Tribes of the North-West Provinces and Oudh (Avadh),** will probably prove of interest to the readers of the *Indian Antiquary* in connection with Mr. Grierson's laudable efforts to elucidate the vexed question of **Gipsy Ethnology.**

The first object is to get a workable classification of the more important tribes, and this has been attempted in Captain Dennehy's report contained in the *General Report of the Inspector-General of Police, North-West Provinces*, for 1868. Captain Dennehy divides them into :—

First.—Those who **seldom or never devote themselves to agricultural labour.** Under this head come the Sâṅsiyâs of Sahâranpur, Muzaffarnagar and Bijnôr:—the Ḍôms or Ḍômrâs of Gôrakhpur, Bastî and Benares: the Hâbûrâs, Kanjars, and Bhêriyâs of the Upper and Central Gangetic Dûâb.

Second.—Those who generally live by robbery and theft, but **sometimes practise husbandry**, such as the Mêuṅs or Mainâs, or Mainâ Mêuṅs, or Mêwâtîs, of Râjpûtânâ and some of the Western Districts of the North-West Provinces: the Bauriyâs of Mêrath, Sahâranpur and Muzaffarnagar: the Baddhaks of several districts: the Jôgîs, generally distributed through the Provinces: the Ahâriyâs of 'Alîgaṛh, Êtâ, Mainpurî and some of the Rôhilkhaṇḍ Districts: the Bahêliyâs of the Central and Lower Dûâb: the Sahariyâs of Bundêlkhaṇḍ: the Chirîmârs of Oudh: the Pâsîs of Allahâbâd, Fatehpur, Oudh and the Eastern Districts generally: the Gaḍḍîs or Gaḍêlâs of the Upper Dûâb: the Bhars of Gôrakhpur and Bastî; the Dôsâdhs of the Benares Division: the Gûjars of the Upper Dûâb and Rôhilkhaṇḍ: the Râṅgars of Sahâranpur: the Bilûchîs of Muzaffarnagar; the Saṅvriyâs of the Bundêlkhaṇḍ Districts of Lalitpur, Hamîrpur and the Native States of Tehrî and Dattiâ; the Avadhiyâs of Oudh, Allahabad, Jaunpur, Fatehpur and Hamîrpur: the Pardêsîs of 'Alîgaṛh and Gôrakhpur.

This classification, however, is far from complete and leaves out a number of tribes; but we are as yet very insufficiently acquainted with the connection between the different tribes, and many names are no doubt only local. The Inspector-General of Police in his *Report* for 1867 (page 61) gave as his opinion that "half the thefts in the Provinces are committed by wandering predatory tribes such as Bauṛiyâs, Bahêliyas, Hâbûrâs, Kanjars, Naths, Ghôsîs, Uthaigirâs, Sâṅvriyâs, Barwars and others." The distances to which some of these people extend their depredations is extraordinary, and they have probably increased in recent years, owing to the facilities afforded by the Railways. For instance, in the *Reports* we find cases of Piṇḍâris from Barôdâ committing a

mail robbery in Âgrâ:[1] Mêwârîs committing five dacoities in Ajmêr;[2] Sauvriyâs disposing of their plunder in Bengal.[3] Bilûchîs from the Muzaffarnagar District were traced to the Bombay Presidency,[4] while individual Jôgîs can be traced from 'Alîgaṛh to Mirzâpur.[5] Pardêsîs of Gôrakhpur and Dhôlêrâs of Barêlî wander all over India:[6] and Pardêsîs from below Dânapûr thieve in Mathurâ.[7] Avadhiyâs and Kapûriyâs of Fatehpur wander all over the Provinces,[8] and a gang of Hirâtî vagabonds appeared in Ajmêr during the famine.[9] These instances might be almost indefinitely increased.

Captain Dennehy remarks in the *Report* above referred to that the Mînâs, Bauriyâs, Baddhaks, Jôgîs, Ahâriyâs, Bahêliyâs, Sahêriyâs, Chirimârs, Pâsîs, Arukhs, Kanjars, Gudelâs, Bhars and Dôsâds, "commit habitually every kind of dacoity, robbery and theft, which opportunity may throw in their way. To these tribes and frequently, too, to the castes of Ahîrs and Thâkurs belong nearly all the gangs of dacoits organised in different localities in the North-West Provinces. The ranks of the professional poisoners are principally recruited from among the Pâsîs, Nâîs, Jarriyâ Lôdhâs, Ahîrs and Ahâriyâs. The Gûjars and Rângars, though they occasionally commit dacoities, are ordinarily cattle thieves. The Bilûchîs are practised thieves, and commit offences in the guise of mendicants (*faqîrs*) or medicine-men (*hakîms*). The Sauvriyas and Avadhiyâs never join in crimes of violence." The last North-West Provinces Census figures are not satisfactory for this class of the population, as will appear from subsequent notes.

Ahâriyâs—these are a leading criminal class in the Central Jamnâ-Gangetic Dûâb and the adjoining Rôhilkhaṇḍ Districts. They do not appear separately in the Census returns, and are probably included in the Ahars, who number 257,670 souls, as compared with only 104,159 shown in the previous enumeration. They are found principally in 'Alîgaṛh (13,014), Êtâ (2,225) Murâdâbâd (37,396), Budâûn (133,085), Barêlî (47,366), Pilibhît (13,250), Tarâî (2,393), but are practically non-existent in the rest of the Provinces. In the Central Dûâb most of them hold land as a means for concealing bad livelihood. They very seldom commit offences near home, but absent themselves for months at a time on plundering expeditions, and visit for that purpose the Pañjâb and even go as far as Bengal. They are expert burglars, and occasionally form dacoit gangs. In former times horse-stealing was one of their specialties, but this has been practically suppressed.[10]

Ahîrs—(Sanskrit Abhîra, a cowherd). The Ahîrs according to the last Census number 3,584,185, and are generally distributed all over the North-West Provinces. Their numbers by revenue divisions are Mêraṭh (46,987), Âgrâ (430,933), Rôhilkhaṇḍ (91,460), Allahâbâd (589,120), Banâras (1,176,593), Jhânsî (61,476), Lakhnau (271,251), Sîtâpur (229,150), Faizâbâd (353,730), Râe-Barêlî (331,381). They are divided into three great tribes—Nandbaṅs, Jadbaṅs (Yâdûbaṅs) and Gwâlbaṅs. In the Western Districts they follow the custom of the Jâṭs and Gûjars as regards the re-marriage of elder brothers' widows, but this is not the case in the Central Dûâb. "In the Dehlî territory the Ahîrs eat, drink, and smoke in common not only with Jâṭs and Gûjars, but also under a few restrictions with Râjpûts. In other places Râjpûts would indignantly repudiate all connection with Ahîrs."[11] Their special occupation is cattle-breeding and dairy-farming, and their distinctive crime is cattle-stealing, but as a whole the caste has a bad reputation. They are not nomadic in their habits, and do not seem to wander far from home for purposes of crime. The Ahîrs of Gôrakhpur are always ready to join in crimes of violence,[12] and are noted cattle-thieves in the Tarâî.[13] The Ghâzîpur Ahîrs make cattle-lifting excursions into Mirzâpur,[14] and the old *Nizâmat 'Adâlat Reports* abound with references to their doings:—*e.g.*, a professional poisoner described himself as an Ahîr of Farrukhâbâd (*Bhawânî*, 19th June 1852.) A band of Mainpurî Ahîrs disputed about cattle-theft, killed one man and wounded another with swords (*Khumân Singh*, 2nd December 1852.) A number of Mêraṭh Ahîrs attacked a party of Gûjars who had tracked

[1] Inspector-General's *Report*, p. 20
[2] *op. cit.* p. 54
[3] *op. cit.* p. 96
[4] *op. cit.* 1868, p. 6
[5] *op. cit. loc. cit.*
[6] *op. cit. loc. cit.*
[7] *op. cit.* 28
[8] *op. cit.* p. 42
[9] *op. cit.* 1869, p. 54
[10] *Police Report*, 1867, p. 29
[11] Sir H. M. Elliot, *Glossary, s.v.*
[12] Inspector-General Police, 1868, p. 106.
[13] *op. cit.* 1871, p. 96
[14] *op. cit.* 1870, p. 83 B

stolen cattle to their village and wished to search (*Mehrâ*, 31st December 1852.) An Ahîr widow of Farrukhâbâd murdered her illegitimate child (*Musamât Surjî*, 30th June 1852.) A party of Ahîrs of Ghâzîpur killed the seducer of one of their relations (*Hansrâj*, 27 Oct 1852.) An Ahîrin kidnapped a Brâhman's daughter (*Musamât Shêôkuri*, 17th Dec. 1852.) An Ahîr was guilty of a cold-blooded murder deliberately planned and deliberately executed, probably through intrigue (*Shêôdîn*, 23rd May 1853.)

Baddhiks, Baddhaks—(Skr. Vyâdha, one who strikes) also known as Siyâr-marwâs or jackal-killers. They bore an evil reputation as *thags* and dacoits in Oudh and the adjoining districts of the North-West Provinces, and a number of them were colonized some years ago near Gôrakhpur, but without much success. Their specialty is disguising themselves as Brâhmans and Bairâgîs and associating with pilgrims coming from the Ganges. They perform the *ârtî* ceremony and mix *dhatûrâ* in the sacred food (*parshâd*), and have been known to put up a shrine as *faqîrs* and instruct disciples (*chêlâs*).[15] They have a slang or *argot* like the Dômrâs. The Gôrakhpur Baddhaks still not infrequently absent themselves from the settlement, and a few years ago their specialty used to be illicit distilling.

Banjârâs—(Skr. Vaṇijakâra, a trader). They pervade the North-West Provinces, and used to be the great grain-carriers of the country, but this trade has almost disappeared since the introduction of railways. They have their chief habitat in the districts along the Nêpâl border. In Gôrakhpur some of the Bhars are known as Banjârâs.[16] They are said in some places to worship a famous bandit, who was killed in some notorious way, but of this there is no distinct information. The Banjârâs of the Central Ganges Jamnâ Dûâb are a wild class, wear their hair long, use bright-coloured clothes and look something like Kabulis, and are apparently non-Âryan in origin. They are fond of a peculiar kind of gold-earring and have a great taste for wearing jewellery generally. Their chief business is cattle-dealing, and they drive round about harvest-time large herds of oxen which they sell on credit to cultivators. They take no bonds and hardly ever go into the courts, but their appearance and manner are so rough and awe-inspiring that they collect their debts by personally visiting their creditors, and are generally paid punctually. The women do a curious kind of embroidery in coloured wools mixed up with cowries. On the whole they are a violent people, and are specially complained of in the Êtâwâ District.[17] A case is reported in which a number of kidnapped children were found in one of their camps in Êtâwâ.[18] Similarly some of them kidnapped a girl in Ajmêr for sale to some wealthy banker.[19] In the old *Nizâmat 'Adâlat Reports* a Banjârâ kidnapped a boy aged 10, the son of another Banjarâ (*Bhâgû*, 2nd November 1852.) A Banjârâ murdered his brother because he reproved him for idleness (*Mohrû*, 20th September 1852). Some Banjârâs' cattle got mixed with those of some villagers, and they attacked the herdsmen, killing one of them (*Hêmrâj*, 18th August 1853).

In Gôrakhpur Banjârâs are commonly known as Nâiks, which is properly the name for the leader of one of their gangs (Skr. *nâyaka*, a leader.) Sir H. M. Elliot gives a detail of the sub-divisions of the tribe in his *Glossary*.

Major Gunthorpe in his *Notes on Criminal Tribes in Berâr* remarks that the Matturiyâ and Lubhânâ division of the tribe confine themselves to cattle-lifting and kidnapping. The Matturiyâs wear the *janêû* or sacred thread, and the women a blue *sârî* or sheet. The married women wear their hair tied up in a peculiar knot on the top of the head and fixed there by a button. This is also the case with the women in the North-West Provinces, but they usually wear a sort of small stick stuck perpendicularly into the hair on the crown of the head. The sheet (*sârî*) is draped over this, and gives them a very remarkable appearance. Major Gunthorpe says the difference between the Lubhânâ and Châran sub-division of the tribe is that the women of the former wear the sheet (*sârî*) and those of the latter the petticoat (*lahngâ*). He gives an elaborate and interesting account of the various means by which they commit dacoities and robberies.

[15] See Capt. Dennehy's *Report* of 1869, p. 121-122.
[16] Capt. Dennehy's *Report* in the *Police Reports* of 1867, p. 112.
[17] Inspector-General of Police, N. W. P., [illegible]
[18] *Police Report* 1871, p. 47 A.
[19] *Ibid.* 1870, p. 99 B.

but none of his remarks appear to apply to the tribe in the northern part of India.

Bâwariyâs or Bauriyâs.—These are one of the most notorious predatory tribes in the North-West provinces. Mr. Ibbetson[20] derives their name from the *bâwar* or noose with which they catch animals. They would thus be analogous to the Pasis who take their name from the noose (Skr. *pâśa*) which they use in climbing toddy trees (*târ*). The true habitat of the Bauriyâs is in the western part of the North-West Provinces and the eastern districts of the Pañjab, but they wander immense distances on predatory incursions. An unsuccessful attempt to colonise them has been made in the Muzaffarnagar District. In their raids they very commonly assume the garb of *faqîrs*. I was present at the search of a camp in Muzaffarnagar, when with them were found the complete apparatus of a *faqîr*: small brass images, fire tongs, mud-coloured clothes, etc., such as are worn by the common *jôgîs*. The best way of detecting them when disguised is by a necklace of peculiar shaped wooden beads which they all wear, as well as gold pins which they have fixed in their front teeth. Should this fail their mouths should be examined, for under their tongues a hollow is formed by constant pressure from their younger days, in which they can secure from fifteen to twenty silver four-*ânâ* or two-*ânâ* pieces. They are so accustomed to this that they often evade search for money when admitted into jail, and the coins thus concealed do not interfere much with their power of speech. Captain Dennehy says[21] that they do not worship any deities of the Hindu pantheon, but in Muzaffarnagar they certainly employ Brâhmaṇ family-priests at marriages, etc. They are very troublesome in the Fatehpur District, where they are said to be all thieves.[22] A case is there quoted of a gang of Bauriyâs in the service of some Thâkurs committing a dacoity in Ajmêr. Seven of them were arrested. In the course of the enquiry sixteen other cases of robbery, burglary and theft came out, and the stolen property was recovered.[23] The Thakurs of Mârwâṛ are said to keep Bauriyâs in their pay and share in the spoil.[24] The *Nizâmat 'Adâlat Reports* swarm with records of their doings. For instance, we have a case of an organised burglary planned by certain [illegible] of the Bauriya caste and worked out by others who concealed their knowledge of the offenders and received a share of the proceeds (*Mairu and others*, 12th January 1852). A gang of fifteen Bauriyâs were convicted at Mêrath of wandering about the country disguised as Bairâgîs and committing theft (*Gulzârî and others* 26th September 1851). Recently a gang went from Muzaffarnagar to Barôdâ and carried off an immense quantity of jewellery belonging to one of the Gaikwar's ladies, and quite lately a gang robbed a Nêpâlese General, who came down from the hills, of a large sum in cash and notes. The **Gidhiyâs** of the Bijnôr District, another gang with a very evil reputation, are said to be closely connected with them, but this is probably incorrect, as the Gidhiyâs are more likely to be an offshoot of the great **Kanjar** tribe of the Upper Ganges—Jamnâ Duâb.

Bêriyâs or Bhêriyâs are a tribe of nomads found in the Central and Lower Gangetic Dûâb. They live in gangs in rude grass or thatched huts. They are very closely connected in manners, character, and physique with the main **Habûrâ** tribe, of which they are possibly only an offshoot. They profess to live by begging and the prostitution of their women, who are taught to dance and sing in a rude way. They really subsist by petty thefts, principally of grain at harvest-time, but they sometimes, when hard pressed, commit more violent crime. Curiously enough many of their gangs are under the leadership of women. Their great meeting-place is on the mounds which mark the site of an extensive ruined city at Nôhkhêrâ, in Parganâ Jalêsar of the Êtâ District. They assemble there in great numbers in the rains and hold *panchâyats*, at which all caste business, marriages, etc., are managed. What historical connection they have with the place is a curious question, which I have been unable to investigate satisfactorily. Like all these tribes they have a regular argot, which they are very careful in concealing. The women particularly have a very non-Âryan look. They have the small, black, bright eye and the restless expression which is

[20] *Panjâb Ethnography*, Sec. 575.
[21] *Report* 1868, p. 112.
[22] [illegible] 1868, p. 12.
[23] [illegible] 1868, p. 65.
[24] [illegible] p. 66.

so characteristic of the aboriginal races. The *Reports* do not notice them much, as they have probably been confounded with the Hâbûrâs.

Bilûchis or Rinds.—Major Davis in the *Police Report* of 1867[25] thus speaks of these people—"So far as they have come under the surveillance of the police they are residents of the Muzaffarnagar District. They are by caste Muhammadans and, numbering about sixty men, inhabit some seven towns or villages in that district. They originally emigrated from the Pañjâb. That they are professional thieves of a dangerous character is now well established. They depart on their predatory tours assuming the character of *faqîrs*, physicians of medicine, and teachers of the *Qurân*, and carry on their depredations at great distances, as far southward as Ajmêr and westward as Lâhôr. Some few in the Muzaffarnagar District have acquired landed property, but the rest may be said to have no ostensible means of livelihood, and to be habitual absentees. Their mode of robbery is not by violence, but by picking locks by means of needles. A house is generally selected, the owner of which is absent. One thief makes an entry, receiving two-thirds of the property as his share, while his confederate, who sits outside to watch, receives one-third." Mr. Ibbetson[26] calls them Bilôchî, and says:—"They give their tribal names as Rind, Lâshârî, Jatvî and Kôrâî." They are found chiefly in Ambala and Karnâl. "They are described as coarse men of a dark colour, living in a separate quarter and with nothing to distinguish them from the scavenger-class except a profusion of stolen ornaments and similar property. They say that their ancestors once lived beyond Kasûr in the Lâhôr District and were driven out on account of their predatory habits. The men still keep camels, and cultivate a little land as their ostensible occupation, but during a great part of the year they leave the women, who are strictly secluded, at home, and wander about disguised as *faqîrs* or as butchers in search of sheep for sale, extending their excursions to great distances and apparently to almost all parts of India."

Binds.—These are a tribe mainly found in Gôrakhpur. In the Census returns they are apparently mixed up with the Bhars, whom they greatly resemble.

Dhôlêrâs.—This tribe infests the Barêli District. They do not appear in the Census, as they are probably included among the fishermen and boatmen (**Mallâh**). The *Police Report* for 1868[27] says that "the **Pardêsîs** of Gôrakhpur and Dhôlêras of Barêli District are swindlers of a like kind to the **Jôgîs** of 'Aligarh, and their wanderings would seem to extend over the whole of India. A good account of them is given by Mr. Knyvett in the *Report* for 1869.[28] He describes them as traditionally immigrants from the Dakhan. They seem to have settled in what is now the Barêli District more than 100 years ago. They are of the Mallâh class, but consider themselves a degree above the rest of their brethren, and never wash the dishes of their employers like the Kahâr Mallâhs. They are said to be called **Dhôlêrâs, Dulêrâs** or **Dalêrâs** because they make tamarisk (*Jhâû*) baskets (*dhalâ*). They steal by day and never by night, like the **Uchaigirâs** or pickpocket class. They go out in parties (*tolîân*) and encamp, each party being under a *mukhiâ* or headman. They remain separately encamped till the omens (*shaguns*) are auspicious: a good omen being to see a single jackal in the evening, but if two are seen together it signifies ill-luck, and they break up their camp and come home. When the omen is propitious a goat is offered to the god Gômaj Dânî (?) and then each party, informing the others of the District which it has chosen for thieving, moves off. Formerly they used to infest Oudh, but now they confine themselves to the North-West Provinces. Very few are ever convicted. They generally go to a fair, and the men dress themselves as Brahmans or Thâkurs. Their custom is to keep an owner of property engaged, while a boy steals, and if the lad is caught he never gives his correct name or address. The thief gets a double share of the stolen property, but most of their gains are spent in drink. If a boy is caught, the well-dressed Dalêrâs of the party intercede for him and try to get him off. They often get up a quarrel in a *bâzâr* to give a boy a chance of robbing something. The *Police Report* of 1870[29] records the conviction of 7 ...

[25] pp. 94-97.
[26] *Panjab Ethnography*, p. 254.
[27] p. 25.
[28] p. 76 B.
[29] pp. 126-127.

the caste in Barêlî for belonging to a gang of thieves.

Ḍôms or Ḍômṛâs.—This is a very curious apparently aboriginal caste and will require some space. The Census figures give the distribution of the castes as follows, by Commissioner's Divisions:—Mêraṭh 99, Agrâ 120, Rôhilkhaṇḍ 44, Allahâbâd 53, Benares 11,814, Jhâṅsî *nil*, Kumâûṅ 157,042, Lakhnau 2,504, Sîtâpur *nil*, Faizâbâd 1,060, Râe Barêlî 3,879; Total 176,615. The districts which record more than 1,000 of them are 'Âzamgaṛh (1349) Benares (1217) Ghâzîpur (1873) Gôrakhpur (5951) Almôrâ (104,936) Gaṛhwâl (52060) Bârâbaṅkî (2367) Râe Barêlî (3879). They thus fall into two great divisions:—the **Eastern Ḍôms** found in Gôrakhpur and the neighbouring districts of the Benares Division; and the **Western or Hill Ḍôms** who are enormously in excess of their eastern brethren.

They are in fact apparently two distinct tribes. The **Eastern Ḍôms** have a very evil reputation, while the Hill Ḍôms though menials, are apparently, as a rule, respectable people. It has been suggested with much probability that the word **Ḍôm** or **Ḍômṛâ** is radically the same as the **Romani** of Europe, *ḍ* and *r* being interchangeable. If this be true they would be the main basis of the **Gipsies** of Europe. Mr. G. A. Grierson's analysis of their *argot* seems to tend towards the same result. What is possibly a third subdivision of the caste is the **Ḍûm** or **Ḍôm Mîrâsîs**, who are professional musicians. Mr. Ibbetson[30] says the Ḍûm and Mîrâsî must be carefully distinguished "from the Ḍôm or Ḍômṛâ, the executioner and corpse-burner of Hindustân, and the type of all uncleanliness to a Hindu: as also from the Ḍûm of the Hill States, whom I have classed as **Ḍûmnâ** and not as Mîrâsî, as I understand that the word Ḍûm is there applied to workers in bamboo. The class is distributed throughout the North-West Provinces, but is most numerous in the Amṛitsar, Lahôr, Râwal Piṇḍî and Multân divisions of the Pañjâb, and in Bahâwalpur and the other States which march with them. . . . . . Their social position, as of all the minstrel castes, is exceedingly low, but they attend at weddings and on similar occasions to recite genealogies. Moreover there are grades even among the **Mîrâsîs.** The outcast tribes have their Mîrâsîs, who, though they do not eat with their clients and merely render them professional service, are considered impure by the Mîrâsîs of the higher castes. The Mîrâsî is generally an hereditary servant like the **Bhâṭ,** and is notorious for his exactions, which he makes under the threat of lampooning the ancestors of him from whom he demands fees." "These four were not born on giving day—the Mullah, the Bhat, the Brahman, and the Ḍûm." "The Mîrâsî is almost always a Mussalmân."

Passing on to the Eastern Ḍôms,—they have, like many of these servile castes, a tradition of Râjpût descent. W. Buchanan[31] says of them —"The **Ḍômrâs** who work in bamboos have disgraced themselves not only by their inordinate appetite, for they will eat food prepared by anyone except a washerman, but by removing dead carcasses and by being public executioners, while their women do not scruple to confess that they drink spirituous liquors. They are very few in number (76 families). Many allege that they were once lords of the country and that the **Ḍômkatâr tribe of military Brâhmans** are not in reality different, but abandoned their impurity when raised to the military rank by Mahananda." At any rate, as Sir H. M. Elliot remarks[32] it is curious that the names of many old forts such as Ḍômdihâ and Ḍômângaṛh testify to their former importance.[33] He also remarks that there are several Ḍôms or Ḍômṛâs scattered over the western districts of the North-West Provinces and in Bundêlkhaṇḍ and Sagar, who are engaged in the menial occupations of making ropes, fans, mats, and such-like articles. In Oudh the term Ḍôm is applied to sweepers, as Bhaṅgî and Chûhṛâ are elsewhere." In the *North-West Provinces Gazetteer*, Bastî District,[34] I gave a tolerably full account of the tribe, with a vocabulary of their *argot*, which those interested in such matters can consult. Socially the most curious point about the Gôrakhpur Ḍôms is that, though a regular jungle tribe, they have no aptitude for sport of any kind, and do not seem to use the flesh of wild animals at all. As these Eastern Ḍôms are collectively

[30] Pañjâb Ethnography, para 527
[31] *Eastern India*, Vol II 471

[32] *G*[illegible]
[33] See also *ante*, Vol XI p 9ff.
[34] p. [illegible]

classed as **Manghaiyâ** or residents of the ancient Magadha kingdom. There are also many sub-divisions of them, but many of these are by a process of fission rising to the dignity of new castes, because of course no one when he arrives at any degree of respectability cares to be called a Ḍôm. Such are the **Kâśîwâlâs**, who are the most respectable of all. Their special business is setting light to funeral pyres, and many have thereby realised much wealth. They are supposed to have been deputed for that purpose from Kâśîjî (Benares): hence their name. The men of this sub-division think it a disgrace to set fire to brick kilns. Next come the **Bânwâḍs**, who are makers of rope from the *ban* fibre. And the **Hêlâs**, most of whom are Muhammadans and do regular sweepers' work. The **Bâṅsphôṛs** or "bamboo breakers" use a particular kind of knife called *bâṅk* or *jhallâ*, and make thatches like the **Gharâmîs** of other parts. **Bâṅsbinwâs** or "bamboo weavers" make bamboo baskets. The **Dharkârs** make fly-nets (*chiq*), stools (*môrhâ*), &c.; they act as musicians at weddings, where they blow long horns called *singhâ*. The **Pattarîs** make the leaf dishes (*pattarî* or *danna*) used at marriages and by poor people. The **Halâlkhôrs** or "foul eaters," are executioners and scavengers.

Of the **Hill Ḍôms** the best account I am acquainted with is contained in Mr. E. T. Atkinson's *Himâlayan Gazetteer*, Vol. II. p. 370. He says, "they are correctly enough supposed to be remnants of the original inhabitants. They are of exceedingly dark complexion as a rule, but not more so than the tribe of the same name in the plains and many Chamârs. They have for ages been the slaves of the **Khâsiyâs**, and been thought less of than the cattle, and with them changed hands from master to master. It was death for a Ḍôm to infringe the restrictions of caste laid down by the Hindu laws, such as knowingly making use of a *huqqa*, or any other utensil belonging to a Râjpût or Brâhman. Even the wild **Râji** considered the presence of the Ḍôm a source of defilement. The Ḍôms are divided into a number of classes; chiefly according to occupation like the Chamârs of the plains. In the extreme west we find them on the right bank of the Indus, living in villages apart from the people, and filling the same servile occupations. In Yâsin, Nagar, and Chîlâs, they are very numerous, and are of a very dark complexion, coarse features and inferior physique. They are found again in the same position among the Âryans of Kaśmîr and among the Dôgrâs of Jammûṅ. Here again they are noticed for their dark complexion, which unmistakably marks them out from the light-complexioned Âryans. They are smaller in limb, stout, square-built, and less bearded, and altogether exhibit a much lower type of face which centuries of serfdom and oppression have not tended to modify. The **Dhiyârs** or ore-smelters of Jammûṅ, corresponding to the **Agûrîs** of these hills and the **Bâtals** of the Kaśmîr Valley who are curriers and musicians and correspond to the **Harkiyâs** of Kumâûṅ, should be assigned to the same class. The **Bêms** of Ladâkh occupy a similar position, and are blacksmiths and musicians. In Kunâur and Kullû we have them again following the same trades, classed with a tribe of similar occupations called **Kôhlîs** by the people of the lower hills, **Chamârs** about Râmpûr on the Satluj and by themselves and the Kunâurîs **Chamangs.** The same remark is made about them here, that they are darker than the Kunêts round them. The smiths are called **Ḍômang** in Kunâurî and the carpenters are termed **Ôrâs**, and both equally with the Kôhlîs considered of impure caste. In Nêpâl these helot craftsmen are represented by the **Nêwârs**. Sufficient has been said to show that these Ḍôms in the Hills are not a local race peculiar to Kumâûṅ, but the remains of an aboriginal tribe conquered and enslaved by the immigrant Khasiyâs."

The specific **crimes** of the **Eastern Ḍôms** are dacoity, robbery, theft, and illicit distillation of spirits. The **Hill Ḍôms** appear to be greatly addicted to kidnapping children."

Dôsâd or Dûsâd.—They do not find a place in the Census. Their habitat is the Eastern Districts of the North-West Provinces, particularly Ghâzîpur, where they are said to number more than 20,000.[36] They seem to be an off-

[35] See *Report of the Inspector-General of Police*, 1870 p. 13 B, and the case of *Ramchugâ, Nizimat 'Adalat Report*, 9th October 1852.

[36] *Report of Inspector-General of Police*, 1870, p. 86 B.

shoot of the Chamârs, and act as grooms in the Pañjâb Military Cantonments.[37] They are the ordinary labouring classes in Bihâr, and are almost invariably *chaukîdârs* or village watchmen, although notorious for their own criminal propensities. They are a very useful caste, as they do any kind of work. Many are table-servants, cooks, bearers and grass-cutters to Europeans."[38] Dr. Buchanan Hamilton thinks they are the same as the **Chaṇḍâls** of Lower Bengal.

Ghôsîs are akin to the **Ahîrs.** They are literally the "shouting caste" (Skr. *ghôsha*) because their occupation is driving cattle. They are generally Muhammadans: while the term gwâlâ is usually confined to Hindu cowherds. Ibbetson[39] says that Hindus do not object to buy milk from them unless it is watered, as they cannot take water from their hands. The Ghôsîs of Bhadwas and Mahrêrâ of the Etâ District had a bad reputation for horse stealing, which has been now put down.[40]

FOLKLORE IN WESTERN INDIA.

BY PUTLIBAI D. H. WADIA.

No. XI.—The Two Brothers.

There was once a great **Râjâ,** who lived very happily with **his wife** and **two sons** The two boys were very dutiful and lovable little creatures, and their parents were extremely fond of them. But unfortunately it happened that when they were scarcely seven or eight years old, the queen, their mother, began to show symptoms of a fatal malady. The Râjâ did all in his power to restore her to health, but in vain. So at last he was advised by his physicians to remove her to a summer palace belonging to him, which was situated in a remote part of his dominions and enjoyed a congenial and salubrious climate.

Now the windows of the queen's apartment in that palace looked into the garden, and each day as she lay in her bed she observed a pair of sparrows chirping and twittering amongst the leaves of a tree in which they had their nest, and carrying grains of corn for their little ones in it. It made the poor invalid happy to see the wee little things being taken so much care of, for it took her thoughts to her own dear little boys whom she made so much of; but sorrow filled her heart the next instant when it struck her that one day she herself might be taken from them and they might be left without the loving care and comforting hand of their mother.

This went on for some time, till one day the queen was deeply moved to see the hen-sparrow grow sick and die in a neighbouring bush, leaving the poor cock in the wildest grief and the little ones wondering why she did not come to them so long. The queen felt much for the little ones, and used to scatter seeds from her window to enable the poor stricken cock-sparrow to pick them up for his motherless brood.

And thus it was for some time, till one day another hen-sparrow appeared upon the scene and began to build another nest hard by; and then commenced a trying time for the nestlings, for this hen, who seemed to have taken the place of their mother, grew so jealous of the love the cock-sparrow lavished upon them, that she would not so much as allow him to procure them their food, and took every opportunity to peck at them with her beak and to hustle them about. By degrees the cock-sparrow, too, learned to regard them with disfavour, and joined his new mate in ill-treating them in various ways. On one occasion the hen-sparrow's jealousy rose to such a pitch that both she and the cock pulled out the feathers of the poor motherless birds, and finally threw them out of the nest down on to the ground. The queen, who had been watching all this with the keenest interest and the greatest grief, burst into tears at the thought that her own boys would one day share the same fate as the little birds, should death remove her from them, as from the nature of her malady she knew it soon must. The king, who happened to be near at the time, inquired into the cause of her grief, whereupon she told him the whole history of the feathered family, and added that she feared her own dear boys would meet with a similar

[37] Ibbetson, *Pañjab Ethnography*, sec. 605
[38] Hunter, *Statistical Account of Bengal*, xi 252
[39] para. 479.
[40] *Report of the Inspector-General of Police, N. W. P.* 1867, p. 29

fate after her death. The king soothed her to the best of his power, and expressed a hope that she would long be spared to her children; but the Rânî was inconsolable, and wanted the king to give her a solemn promise that if ever he married a second wife after her death he would not allow her to ill-treat his sons. In vain the king assured her that he was determined not to marry a second wife and give the boys a step-mother, but the queen would not believe him, saying that she knew better, and that his position in life required that he must have some one to share the throne with him. She entreated him, therefore, to select a good-tempered and kind-hearted woman for his second wife, and to keep her sons as independent of her as possible. The king promised to do all that she desired, and soothed her by kind words and soft entreaties to take heart, and hope for a speedy recovery.

After this the queen's illness took a turn for the worse, and in a short time she closed her eyes for ever with her dear little boys weeping on her breast.

The Râjâ was sorely grieved at this, and sought by every means in his power both to comfort his motherless sons and to promote their happiness. He kept them constantly by his side, and spared no pains to make them contented with their lot and forget their mother's loss.

This happy state of things, however, did not last long: for in a couple of years' time the courtiers began to impress upon the king's mind the advisability of a second marriage, so that he was at last persuaded to listen to them and marry the daughter of a neighbouring Râjâ.

As soon as the new queen was installed into the palace she began to look with displeasure at the hold the young Princes had on the king's heart, and her displeasure soon ripened into jealousy. She objected so strongly to the boys being constantly in his company that the king had to ask them to avoid being seen with him so often. The boys, who were wise beyond their years, soon saw the awkward position in which their father was placed, and did their best to keep themselves as much out of their step-mother's way as possible. But still the wicked woman went on finding fault with them in one way or other, and kept bothering the king with a thousand complaints about them, so that he became tired of them and it struck him that perhaps he himself had been spoiling the boys with over-indulgence, and with this idea he too began to ill-treat the poor little princes.

One day it happened that the queen was out in the garden by herself enjoying the fresh air and the charming scenery, when suddenly a ball studded all over with diamonds and pearls came rolling up to her feet. She guessed at once that the ball could belong to nobody save her own step-sons, for they alone could afford such costly play-things, and was going to pick it up, when the eldest of the two boys jumped over the wall into the garden and running up to where the queen was sitting took up the ball and ran away with it at full speed. But as soon as he turned his back on her the queen gave a loud scream, and began to weep bitterly, to tear her hair, and to rend her clothes, so that the attendants went running up to her to learn the cause of her grief, and, in reply to their enquiries, she told them that she had been grossly insulted by her eldest step-son. They soon took her into the palace and there she told the king such a black story against his eldest son that in his wrath he began to rave like a madman, and swore that he would never look upon both the boys' faces as long as he lived, and gave orders that they should that very instant be driven out of the palace. But the queen would not be pacified even with this, and threatened to poison herself if the king did not that very moment pass sentence of death upon both his sons. The king thereupon issued orders to his chief executioner to take the two boys away to some dense forest and, after putting out their eyes, to leave them there to be devoured by wild beasts: and further commanded at the queen's suggestion that their eyes be brought before him as a proof that the cruel sentence had been put into execution.

The executioner, who was an old man, took the poor boys into his custody and set out with them towards a dense forest. But all the way there the young princes entreated him to have pity on them and not deprive them of their eyes: and they pleaded so sweetly for mercy that even the hard heart of the executioner

melted, and he promised that he would not hurt a single hair of their heads.

At this the boys fell at the old man's feet and thanked him for his kindness with hearts full of gratitude. The executioner, however, was at a loss to think where he could procure two pairs of eyes to lay before the queen in place of theirs, for he dared not return without them; so the three hit upon a plan by which to deceive the wicked queen.

They took their bows and arrows and killed a couple of wild fawns, and plucking out their eyes tied them up, dripping with blood, in a handkerchief. The executioner then bade the princes be of good cheer and went back towards the palace with the bundle containing the eyes in his hand. As soon as he was gone the two brothers, overcome with grief and fatigue, went to sleep under a large tree. When they awoke the next morning they felt very thirsty and looked about them for water, but there was none to be had on the spot. So the eldest boy said:—

"Sit here a while, my brother, under this tree, while I go to some other part of the forest and get you some water to drink, and, if possible, some wild fruits or roots for food, for as we have been fasting so long, you must be feeling very hungry."

The little boy agreed to this, and sat down under the tree. He waited there for a very long time, but his brother did not turn up, and at last he began to fear that his dear brother had been devoured by some wild beast, when all at once he distinctly heard voices over his head. He looked up and saw that a chakvâ and a chakvî,[1] who were perched upon one of the branches of the tree, were talking to each other like human beings.

"You may pride yourself as much as you please, Chakvî," the *chakvâ* was saying, "upon the medicinal properties of your feathers; but you could show nothing to equal certain properties I possess."

"Oh, indeed!" replied the *chakvî*, "pray what is it that is so marvellous about you? Would you not tell me?"

"Well," said the *chakvâ*, "I would never have spoken of it, but I break silence for this once, Chakvî, since you are so eager to know of it, but pray don't tell any one about it."

"No, I shan't," returned the *chakvî*, and the *chakvâ* resumed.—"The man who eats my head will the next day be crowned king, whereas he who eats my liver will have twelve years of weary travelling and wandering about for his pains, but will attain immense happiness at the end of that period."

The bird had hardly spoken these words when up went an arrow from the bow of the young prince lying underneath and down fell the poor *chakvâ* gasping for breath!

"So much for your boasting!" cried the *chakvî* in distress and flew away. The young prince soon pulled out the poor bird's feathers, and gathering a few sticks together, lighted a brisk fire and roasted the little bird over it, meaning to share it with his brother on his return. Being hungry, however, he did not wait for his brother to come up, but dividing the bird into two parts, he put aside the forepart with the head for his brother and ate the rest, liver and all, himself; for he thought that if ever the bird's words came true, he would much rather have his eldest brother to be king than himself.

Shortly after the eldest prince returned with some water, having failed to procure anything for food. So his brother gave him the head and shoulders of the bird to eat, and told him the whole story of the *chakvâ* and the *chakvî*, and the two brothers laughed and jested over it for some time and then fell fast asleep.

The next morning when they awoke they felt very hungry, the youngest especially feeling so weak for want of food as not to be able to rise from the ground on which he was lying. Upon this the elder brother said:—

"I shall go and make another attempt to find food. I have plenty of gold in my pocket, only I do not know where to buy food with it." So saying he set out at full speed and went straight on till he came within sight of a large city. He made towards it with all haste, but found that as it was very early in the morning the gates of the city had not been opened. So tired and hungry he sat upon a stone and waited. At sunrise the gates were opened, and he at once walked in through them; but what was his surprise and consternation to find himself surrounded by armed men, who took him rather gruffly by the arms

[1] See *ante*, Vol. X. p. 82, footnote.

and said, "Come along, young man, since it has been your lot to be the first to enter these gates this morning we must take you to the queen and see what follows." And so they gave him a horse to ride and escorted him with great haste towards the queen's palace.

Now the reason of this mysterious behaviour on the part of the guards was that the king of the country had recently died without an heir, and the court astrologers had predicted that the heir to the throne would be the first to enter the gates of the city the day after the king's death, and that the sacred court elephant would of its own accord throw a garland of flowers round his neck. The queen had therefore posted the guards at the gates of the city that morning with orders to bring to her the first man that entered them.

When the guards dismounted at the palace with the handsome young prince in their charge, the queen ordered all the nobles of the court to assemble in the court-yard. She then gave orders for the sacred elephant to be brought round and put a garland of flowers on its trunk saying,—"Throw this round the neck of him who is destined by Îśvara to occupy my husband's vacant throne." The elephant looked around for some time and then made towards the place where the young prince was standing and dexterously threw the garland round his neck. At this there arose a loud shout of joy from the assembled multitude, and the newly elected king was taken into the palace and installed on the throne by the chief *gurû* of the court. Next day there were great rejoicings throughout the kingdom, and the young prince was proclaimed king with great pomp. The poor lad, however, was not happy at this sudden change in his fortunes, for he thought of his brother whom he had left half-dead from want of food in the forest, and who, he feared, had perhaps died of starvation. He nevertheless despatched messengers in search of him and waited anxiously for their return.

Meanwhile the younger brother, after waiting for a few hours for his brother, put all his strength together and went in search of food and water. He wandered about for some time till chance led his footsteps towards a small stream, and there he refreshed himself with its delicious fresh water and the wild fruit that he found growing on its banks. This partially restored his strength, and he walked on till he came upon an old potter digging for clay near a clay-pit.

"Shall I help you in digging clay, sir?" said the lad to the potter. "I am in search of some employment and would do anything for you if you would only give me some bread to eat."

The potter had pity on him and said: "Yes, if you are really willing to work you may dig clay for me while I work at the wheel, and in the evening I shall give you a good dinner in return."

So the prince at once set about his task and worked away with such a will that before evening the potter took a liking to him, and taking him home treated him to a hearty dinner.

By degrees the young prince learned the art of making pots, and he so improved upon the old potter's method that in a short time he was able to turn out the finest and most artistically designed pots ever seen, till at last the old potter became famous for the beautiful workmanship of his wares and grew quite rich in a short time.

Now the potter had no children, so he and his wife adopted the good prince as their son, and treated him with the greatest kindness and affection.

After remaining with them for some time, the young prince one day asked the potter's and his wife's permission to go on a journey, saying that though they loved him as their own son and made him want for nothing, he felt very anxious about his brother, and was therefore determined to find out what had become of him since they parted.

The old people felt grieved at the idea of parting with him, but seeing that he was determined, gave him their permission with the greatest reluctance, and once more the young prince set off in search of his brother.

For several years he wandered about from one country to another without finding any trace of his lost brother, till at last one evening he sat down weary and dejected on the doorstep of a poor old woman's cottage, and being very hungry, looked wistfully at some wheaten bread she was baking. The poor woman, when she saw the weary traveller, took pity on him and invited him to enter the cottage and partake of some bread.

The youth went in, but was surprised to see the woman weeping and sighing bitterly as she made her bread.

"What ails you, good mother?" cried he in a kind voice. "Tell me the cause of your grief, and I shall do my best to help you."

Upon this the old woman said—"**A fierce ogre** has long infested this part of the country, and of late he had been spreading his ravages far and wide, and our king being unable to cope with him was obliged to enter into an agreement to supply him with a cart-load of sweet wheaten cakes, a couple of goats, and a **young man** every day, in consideration of which the ogre leaves the rest of the inhabitants unmolested. Now the king finds the cakes and the goats himself, but calls upon the inhabitants to supply the young men, and so each family has to give one every day. To-night it is my turn, and I must send my dear son to be devoured by this monster." So saying the old creature burst into a flood of tears.

"Don't weep, my good woman," said the prince kindly, "but listen to what I say; **let me go to the ogre to-night in place of your son**, and by the help of Iśvara I shall kill the monster."

But the old woman's son, who was also a brave fellow, would not hear of a stranger sacrificing himself, as he thought, to save his life, so an altercation took place between them, which lasted till midnight, when the king's guards came up to the door and demanded her son of the old woman.

The young prince, however, shut him up in a room, and opening the door rushed out and joined the guards. They soon mounted him upon one of the carts they had brought with them full of provisions, and binding him hand and foot drove away.

When they arrived at the spot where they usually left the ogre's meal they stopped, and unyoking the oxen went away with them, leaving the young man there with the goats and the cakes in the carts.

They had hardly gone a few yards when the clever youth managed to extricate one of his arms from the cords with which they were tied, and pulling out a sharp knife from his pocket cut all the cords and set himself free. He then got out of the cart and hid himself under it. Presently the ogre came foaming at the mouth and smacking his lips in anticipation of his favourite meal, when the brave prince dexterously hurled a number of cakes at his feet and as he stooped to eat them he crept unperceived under his body and plunged his sharp bright knife right into his heart! The monster fell back with a groan, and the prince, stepping aside, plunged his knife again and again into his body before he had time to recover from his consternation, and after a sharp encounter **succeeded in putting him to death.** He then opened the ogre's large mouth, and **cutting off his tongue and severing his tail** from his body he tied them up in a bundle, made full speed towards the old woman's house, and feeling very tired, soon fell fast asleep in her verandah.

The next morning, when the cart-men went back with their bullocks to fetch the carts as was their wont, they were surprised to see the goats unhurt, the man missing, and the ogre lying dead at some distance.

Now the king of the country had issued a proclamation some time previously to the effect that he would give half his kingdom and his daughter in marriage to any one who would kill the ogre, so the cart-men thought that, as chance had thrown this opportunity of enriching themselves in their way, they should make the most of it, and determined, therefore, to go and tell the king that **they had killed the ogre** and claim the promised reward.

So they put a hundred pairs of bullocks together and dragged the huge monster towards the king's palace, and loudly proclaimed before the assembled court that they had killed him by the sheer force of arms.

The king, however, disbelieved their story and asked them to produce the weapons with which they had fought the ogre and deprived him of his life.

The poor swains were non-plussed at this, and for a time they could say nothing. At last one of them mustered up courage to say "I wounded him with my knife, Mahârâj, while my friend here thrashed him with his club and between us two we managed to despatch him."

"And will you show me the wonderful knife with which you killed such a monster?" said the king.

The cart-man thereupon drew out of his girdle a rusty old blade and showed it to the

king amidst the great merriment of the courtiers, while our young hero, who had been in court all the while watching the proceedings, could not help bursting out into a loud laugh.

At this the king ordered him to be brought before him and asked him what it was that had made him laugh so loud.

Then the young man related to the Râjâ all about his adventures with the ogre in such a plain straightforward way that the king was quite convinced of the truth of his narration. His Majesty, however, ordered him to produce the weapon he had used in the encounter, and the prince at once drew out his sharp bright knife and flashed it before the eyes of the assembled multitude.

The cart-men, as might be supposed, made a show of disbelieving the youth's story, and loudly protested against being robbed of their just reward by a stripling like him. Upon this the prince begged of the king to ask the cartmen what had become of the ogre's tongue and tail.

"Oh, perhaps he never had any!" cried the men simultaneously, "for when we killed him we found him without them."

"Then wait till I show them to you," cried the prince, and opening a bundle and taking out the tongue and the tail, he placed them before the king as a convincing proof that it was he who had killed the ogre.

The king at once ordered the cart-men to be ignominiously driven away, and embracing the young prince, hailed him as the deliverer of his country. He then, as promised in the proclamation, transferred the sovereignty of half his kingdom to him and made preparations for his marriage.

The astrologers having fixed upon the day on which to celebrate the auspicious event there were great rejoicings in the city and the old king sent out numerous invitations to all the neighbouring Râjâs to join in the festivities. Among those who accepted them was one young Râjâ who was said to have been elected to the throne by a court elephant and who was held in high esteem by his subjects. So our hero was naturally very eager to see him, for he thought that if ever the *chakrâ's* words had come true it must have been his brother who had been made king in this singular fashion. So he looked forward with great interest to the day on which this Râjâ was expected to arrive.

The day came round at last, and the young prince's heart leapt within him for joy when he recognized in the royal visitor his long-lost brother. The two brothers greeted each other very affectionately and told each other of all that had happened since they had parted, and so much was the elder affected with the narration of his younger brother's sufferings that he fell upon his neck and the two big men wept like little children.

This unexpected meeting of the brothers lent greater hilarity to the joyful proceedings, and the two spent several happy days in each other's company.

When the wedding festivities were over they resolved to go and pay a visit to their old father. So they got ready a large army and marched with it towards their native country.

After several days' weary marching they reached the place and pitched their camp on the outskirts of their father's capital. The old man, being duly informed of this, trembled to think that some foreign Râjâs, more powerful than himself, had come to deprive him of his throne. It was then that he thought of his sons, and regretted very much that they were not living to help him in his old age, having been condemned to an early death owing to the evil influence exercised upon him by his wife, who, be it mentioned, had long revealed herself to him in her true colours. So he thought it best to conciliate the invaders and make peace with them on easy terms, and accordingly sent his prime minister to them with rich presents and offers of more, if they would let him remain in undisturbed possession of his kingdom.

The two Râjas in their turn sent back word that they had not come to his country with any hostile intent, but only meant to pay him a friendly visit. So the old king went out himself to meet them and implored them with clasped hands to have mercy on him in his old age and not to shed the blood of his innocent subjects since his two brave sons lived no longer to protect them.

At this both the brothers fell at their father's feet and begged him to receive back to his heart his long-lost sons, telling him how the good executioner had spared their eye-sight and how they had come to be in the state in which he found them.

The old king could not believe his eyes, so strange it seemed to him, that the sons whom he had mourned as dead should be standing before him.

The brothers then caused their step-mother to be brought before them in order to question her in the king's presence as to the foul charge she had laid at their door.

The wicked woman, however, felt so ashamed of herself that she fell at the young men's feet and confessed her guilt.

The king, who had long seen his mistake, at once ordered her to be driven out of the kingdom, and the father and his two sons then entered the city with great pomp and lived very happily ever afterwards.

A NOTICE OF THE ZAFARNAMA-I-RANJIT SINGH OF KANHAYYA LAL

BY E. REHATSEK.

(*Continued from p. 60.*)

When six months after the occupation of Pêshâwar had elapsed, a courier arrived from Kâbul with two letters from **Dôst Muḥammad,** one addressed to the Mahârâjâ and the other to the prince. He complimented Ranjît Singh on the great power he had attained, but requested him to restore the Governorship of Pêshâwar to **Sultân Khâṅ,** who had always paid his tribute regularly, and had been tardy only the last year. He moreover promised to march with his own troops against Sultân Khâṅ and to punish him if he should afterwards at any time be remiss in sending the tribute. The Mahârâjâ, highly displeased with the presumption of Dôst Muḥammad, said that he had conquered the Pañjâb, and being able to defend the district of Pêshâwar likewise, he challenged Dôst Muḥammad to invade it. Then he despatched **Gulâb Singh** [of Jammûṅ and Kashmîr] with a body of troops to Pêshâwar, and shortly afterwards also followed in person himself; but when he arrived at **Rohtâs** the news came that Dôst Muḥammad had already reached the **Khaibar Pass** and would soon attack Pêshâwar, and that, although the Prince Nau Nihâl, Harî Singh and Ventura were on the spot and ready to defend the province, the Mahârâjâ's presence would ensure a speedy victory. Ranjît Singh therefore now went forward with greater speed, and his progress was not interrupted till within a day's journey from Pêshâwar, when the enemy gathered in force and attempted to block the way. The Mahârâjâ ordered **Sukhrâj** to disperse the rebels who, however, stood their ground and were put to flight only after a contest of several hours. Ranjît Singh entered Pêshâwar the next day, when the Prince Nau Nihâl with the officers who had already been there for some time received him with great demonstrations of joy. Sultân Khâṅ also desired to pay his respects, but the Mahârâjâ wrathfully turned away from him.

Sultân Khâṅ thereon offered his excuses, and succeeded so well, that the Mahârâjâ presented him with a *jâgîr* valued at three *lâkhs* in the Kohât district, and sent Faqîr 'Azîzu'ddin as an envoy to **Kâbul** for the purpose of making friendly overtures to Dôst Muḥammad, and reproaching him with having assumed a hostile attitude towards himself. The envoy had commenced to hope that he would induce Dôst Muḥammad to pay a visit to Ranjît Singh, but some of his advisers succeeded in arousing his suspicions, and he granted no more interviews to the ambassador, who was kept under surveillance till the army of Dôst Muḥammad had reached the Khaibar Pass, where it encamped, and he was then permitted to depart. Hereon the Mahârâjâ despatched Harî Singh, with Gulâb Singh, Mahârâjâ of Jammûṅ and Kashmîr, to attack the Afghâns, but the latter had already disappeared and retired to their own country when the Sikhs arrived. Accordingly Ranjît Singh left a garrison to guard the frontier and marched back to Lâhôr, whence he proceeded to Amṛitsar, where he ordered the **wedding of Prince Nau Nihâl** to be celebrated, to which also the commander of the English forces at Fîrôzpûr, and the Agent, Mr. Wade, who resided at Lôdiânâ, were invited, as well as the Râjâs of note. After the festivities, during which large sums were disbursed, the guests received costly presents of silk dresses and jewellery and then took leave. Before, however, the ladies, who had accompanied the English commander, departed, they requested permission from the Mahârâjâ to pay a visit to his ladies.

they were accordingly received with much politeness by the **Mahârânî Nakâyin**, the mother of Prince Kharak Singh, who showed them all the fair ones sitting, in beautiful attire, on one side, whilst they were placed on the other: and after they had conversed for a while, the Mahârânî presented each of them with some jewellery, and they departed. To give due honour to the English commandant, the Mahârâjâ Gulâb Singh was instructed to accompany him to the banks of the Satluj.

News arrived that Dôst Muhammad had again sent an army, commanded by one **Hâjî Kâkar**, from the Khaibar in the direction of Pêshawar, and that the Sikh garrison of **Jamrûd**, having been besieged by the Afghâns, had been liberated by Sardâr Harî Singh, who had marched from Pêshâwar and beaten the Afghâns, but that nevertheless more reinforcements would be welcome. Troops were accordingly despatched the same day, but they had not gone further than Gujrât when a courier met them with the information that the Afghâns had again advanced from the Khaibar Pass and occupied Jamrud, but that Sardâr Harî Singh had expelled them after slaying 500 and pursued them towards the Khaibar. When he had reached 'Alîmardân they had again gathered in force and offered battle, in which the Sikhs defeated the Afghâns: but while engaged in plundering, they had left their commander Harî Singh unsupported, and he had been assailed by some of the enemy and killed, whereon the troops marched back to Pêshâwar. **Mahân Singh**, the commander of the fort of Jamrûd had kept the **death of Harî Singh** secret, and requested the Mahârâjâ to send troops quickly. Ranjît Singh was greatly affected by this sad news, deplored the loss of his brave general, and consulted his *wazîrs*, who were of opinion that Dôst Muhammad [illegible] heard of Harî Singh's death, he would at once march to Pêshâwar [illegible] and [illegible] the Mahârâjâ ought to [illegible] Ranjît Singh [illegible] to Pêshâwar [illegible] restored order [illegible] for the defence of the district [illegible] and [illegible] to Lâhôr.

5? After his victorious campaign in Pêshâwar the Mahârâjâ determined to undertake a hunting expedition on a large scale, and departed with his army to Dêra Nânak, where he performed devotions, distributed alms, and ordered the cupola of the temple to be rebuilt of stone, gilded, and adorned in every way. Then he departed to Adînanagar, and the locality being very pleasant, he determined to remain there a few weeks. During his stay two envoys, **Mr. Macnaghten** and **Mr. Burnes**, sent by the Governor-General arrived, to inform the Mahârâjâ that the English Government was on the point of **invading Afghânistân** for the purpose of replacing the exiled king **Shâh Shujâ'a** upon the throne, and removing Dôst Muhammad therefrom. Being an ally, the Mahârâjâ was invited to send his own forces with the English army, and to allow the latter to march through his dominions to Afghânistân, by way of Pêshâwar, and as the British troops were also in Sind as far as Shikârpûr to permit them to pass also through that portion of his territories as well. When Ranjît Singh heard the proposals, and considered that he [illegible] conquered Sind by [illegible] he [illegible] unwilling to consent, [illegible] on good terms with the English he agreed to all they wanted and promised to send also an auxiliary force of his own, making only one condition, that [illegible] Shâh Shujâ'a should pledge himself to cast off [illegible] towards the Mahârâjâ, become his friend, and renounce all claims upon the possession of Pêshâwar, Kashmîr, Multân, [illegible] the Dôâba. On this [illegible] **a treaty** was drawn up between the English and the Mahârâjâ, who [illegible] the envoys to Lâhôr, where he entertained them hospitably, giving them presents, till they departed. Then the **Governor-General**, having brought his army [illegible] on the [illegible] **Mr. Wade** [illegible] review. [illegible] Ranjît [illegible] Kharak Singh [illegible] Mac-[illegible] paid a visit to the [illegible] Governor-General, but he [illegible] the bridge, when the latter advanced

towards him, and the artillery fired a salute The interview took place with the usual solemnity, and at the end of it the Governor-General offered presents to the Mahârâjâ, the principal of which were a beautiful portrait of Her Majesty Queen Victoria, which was much admired and saluted by the rising and bowing of the whole assembly, whereon the artillery boomed a grand salute, and the Mahârâjâ took his departure. The next day the Governor-General returned the visit, and the day afterwards the Mahârâjâ gave a grand banquet to the Governor-General, and they dined together. On the third day the latter returned the same hospitality to the Mahârâja, and at the last interview at Firôzpur, which took place on the fourth day, the Mahârâjâ invited His Excellency to accompany him to Amritsar and to Lâhôr. The invitation having been accepted, they both marched with their armies, first to the sacred city and then to the capital, but whilst sleeping one night in the latter, the Mahârâja was suddenly attacked by a fit of the disease called *laqwa*.[76] The Governor-General manifested for him the greatest sympathy whilst in Lâhôr, and the Mahârâjâ, recovered sufficiently to make arrangements for the departure of six thousand troops, one-half consisting of cavalry and the other of infantry, with six pieces of artillery, and commanded by **Ventura,** to Peshâwar. This force was accompanied by **Mr. Wade,** who had some two hundred men, and four pieces of English artillery with ammunition. When the Governor-General, who, as already stated, was much affected by the calamity of the Mahârâja, had seen these arrangements executed, he left Lâhôr, and returned to Firôzpûr.

49. The disease, which lasted several months, had now so enfeebled Ranjit Singh, that only a spark of life remained in his body. His complexion was changed to yellow, his tongue had become mute, his once powerful strength had so vanished that he was unable to turn from one side to the other; he had no appetite, his body was emaciated, the *laqwa* afflicted him with intense pain, and paralysis deprived him of motion. His court physicians, 'Inâyat Shâh, Nûru'ddîn, and 'Azîzu'ddîn tried their best to cure him, as well as other medical men from the Pañjâb, from Multân and from Kaśmîr, but all to no purpose; and when a celebrated English doctor, whom the Governor-General had sent, arrived, the Mahârâjâ absolutely refused to be treated by him. He continued, however, to swallow the medicines of his own physicians, who administered to him oranges, which augmented his jaundice, *sandal*, which increased his headache, and almonds, which intensified his thirst, whilst musk and ambergris produced fainting, exhilarant drugs made the heart palpitate, and strengthening potions caused a restless liver! Seeing his end close at hand, the Mahârâjâ now summoned his **heir apparent** to his bedside, and, appointing him his successor, surrendered the government to him, and made **Dhyân Singh** his *wazîr*. After that, great numbers of courtiers and servants were admitted, to whom alms were distributed, which were, however, bestowed not only upon persons connected with the service of the court, but included also the poor of the town, and even of one place where Nânak had first seen the light of day, and of another where the remains of the founders of the Sikh religion had found their last resting place.[77] After having thus given away twenty-five *lâkhs* of rupees in alms, Ranjit Singh desired to crown his beneficence by bestowing the priceless diamond Kôh-i-Nûr as a gift upon the temple of Râm Das, but his heir apparent absolutely refused to permit such prodigality. The condition of the Mahârâjâ now became even worse, his mind began to wander, his fainting fits became more frequent, his breathing more difficult, and he sometimes closed his eyes and sometimes wept bitterly.

When the heir-apparent saw that the last moment had approached, he spread out a carpet of Italian *kalâbatûn* (or gold-cloth) and of Chinese brocade with ten *lakhs* of rupees [illegible], and made other arrangements necessary for the impending death-scene. Resting upon this carpet the Mahârâjâ expired, whereupon the whole of the Pañjâb went into mourning, and lamentations resounded in the palace. Some persons wept aloud, some silently, others struck their breasts, and Dhyân Singh, the *wazîr* of the deceased Mahârâja,

[76] Distortion of the mouth and convulsions

[77] The places are Gurdwârâ-Nankânâ and Nânak Dera

desired to be immolated on the funeral pyre with the body of his master, but was dissuaded by the other courtiers. The ladies Harvî and Râjvî,[78] with other handmaids of Ranjît Singh also prepared for the last journey, and expressed willingness to be immolated. The successor caused immediately a golden bier to be prepared in the form of a litter upon which the corpse was placed amidst wailings, and carried from the fort by the army and the population, to which last the nobles distributed money. When the funeral procession reached the burning ground, the corpse having been placed upon a pyre of sandalwood, the faithful Rânîs were allowed to stand beside it, and the heir-apparent approaching, set fire to it with his own hands. When the flames shot upwards to the sky, a general shout of lamentation shook the earth, and shortly afterwards an abundant shower of rain fell, whereon the ashes were collected, the remaining ceremonies performed, and all was over. Thus Ranjît Singh died in St. 1896 [A.D. 1839] after a reign of forty years. His burnt bones were by order of the heir-apparent conveyed to the banks of the Ganges, and he ordered a grand **mausoleum** to be built over them, but did not live to see it completed. The Mahârâjâ Shêr Singh endeavoured to do so, but it was not finished when he died, and disturbances having arisen in the Pañjâb, the building was altogether neglected. The British Government, however, annexed the country and finished the edifice, which then remained in good condition during a number of years. At last, however, the eight columns which had to support a heavy cupola, began to give way and to break, whereon **the author of this work** added, by order of the Government, eight columns more, making the total number sixteen, and strengthened them with iron-hoops, so as so insure their stability for a long time to come.

41. After the demise of Ranjît Singh, his successor **Kharak Singh** ascended the throne and assumed the reins of government as soon as his season of mourning had expired. **Dhyân Singh,** who had been *wazîr* during the previous government remained in his former position, but was after a short time neglected in favour of **Chait Singh,** an ambitious and intriguing *sardâr* whom the new Mahârâjâ henceforth consulted on all occasions, although he possessed no experience in the administration. The *amîrs* of the *darbâr* were so displeased with Kharak Singh's choice that they waited upon his son **Nau Nihâl Singh,** who was according to our text a very intelligent and sweet-spoken young prince, and represented the matter to him. Accordingly he went to his father and informed him, but Kharak Singh who was a good-natured man and void of all ambition to govern, paid not the least attention to the warnings of his son, who thereon took his place on the throne with the approbation of the *darbâr*, and as Chait Singh, his father's *wazîr*, still desired to monopolise authority, he slew him with his own hands. The murder of his *wazîr* greatly affected Kharak Singh who had already given up the administration and now altogether retired, but when he heard that Nau Nihâl Singh had been formally installed by the *darbâr* on the throne, he fell sick and shortly afterwards died. His funeral was solemnized with great pomp. Alms were largely distributed, the corpse was borne to the river-bank on the shoulders of Nau Nihâl and some *amîrs*, and on its being committed to the flames, two Rânis, widows of Kharak Singh, were likewise burnt on the pyre, with nine of his handmaids.

After the cremation **Nau Nihâl Singh** performed his ablutions in the river, and afterwards returned with the crowd of *amîrs* to the fort, but on entering the first gate, a stone detaching itself from the top of it fell on his head, and suddenly extinguished the lamp of his life. Now the *wazîr* who is, by the author, stated to have been both a politician and a warrior, desired to place the prince **Shêr Singh** upon the throne, but was opposed by the **Rânî Chand Kanwar** the mother of Nau Nihâl Singh, who being supported by the Sardârs Ajît Singh, 'Atar Singh, and Lahnâ Singh, all of whom were of the family of **Sindhânwâliâ**, assumed the reins of government. After the lady had been placed upon the throne, the *wazîr* abstained from appearing in the *darbâr*, and, departing from Lâhôr, retired to Jammûn, his ancestral home. In his absence the Rânî enjoyed her power a few

[78] According to a marginal note Harvî and Râvji were wives of Rânjit Singh, and daughters Sansâr Chand Katôch of Kângrâ.

months undisputed, but the military party was dissatisfied, and believed that a woman could not possess the valour, the knowledge, and the tact required for governing, although a solitary example in which these qualities are united, is existing in the world, in Queen Victoria, who is, however, guided by the wise counsels of her ministry! **Shêr Singh,** having accordingly been invited to assume the reins of Government, marched with his forces from Vatâlâ, but on arriving at the gates of Lâhôr, found them closed. He then occupied the town and laid siege to the garrison, which he attacked and compelled to surrender three days afterwards, chiefly through the instrumentality of the **Mahârâjâ Gulâb Singh**, who had returned just in time from Jammûñ, and brought the negotiations to a satisfactory issue.

42. When **Shêr Singh** attained the supreme power, the opposing **Sindhâñwâliâ** faction was dismayed, and its chiefs forthwith sought refuge in the British territory. Meanwhile the new sovereign was endeavouring by the aid of his faithful *wazîr* **Dhyân Singh,** to restore security, to regulate the administration, and to promote the welfare of his subjects, and trying also, by dispensing justice and by a liberal distribution of presents, to gain their affections. After two years had elapsed in this manner a serious estrangement arose between Shêr Singh and his *wazîr*, the breach being widened by malevolent persons who suggested new causes for disagreement to both. The chief cause appears to have been the anxiety of the Mahârâjâ for reconciliation with the Sindhâñwâliâs which the *wazîr* disapproved of, and as will appear further on, rightly so, because it cost both of them their lives. Nevertheless the Mahârâjâ invited many of the said faction to return to the Pañjâb, appointed them to high stations, bestowed upon them *jâgîrs*, and sought to please them in every way. Outwardly they were thankful and friendly, but that all this loyalty was feigned, appeared plainly when the **Sardâr Ajît Singh, Sindhâñwâliâ,** took aim at **Shêr Singh** as he sat in *darbâr*, at Shâhdara near Lâhôr, and shot him dead. On the same occasion also **Kañwâr Partâb Singh,** the little son of the Mahârâjâ Shêr Singh, was slain in a dastardly manner by the **Sardâr Lahnâ Singh, Sindhâñwâliâ.** The turbulent faction then marched into Lâhôr, and **Râjâ Dhyân Singh** the *wazîr*, was slain in the fort by the abovenamed Ajît Singh, who fired at him, whilst defending himself on horseback against the invading crowd. When the conspirators had gained supremacy, they indulged for several days in revelling, and the population, dreading worse consequences, trembled with fear. The **Râjâ Hîrâ Singh,** who was at that time with the army, and had heard what had taken place, appealed to the **Khâlsâ**[80] troops to aid him to avenge the murder of his father Dhyân Singh, as well as that of the Mahârâjâ Shêr Singh, and to place upon the throne **Dalîp Singh,** a son of the Mahârâjâ Ranjît Singh. This appeal having been eagerly responded to, the troops marched to the fort and opened a cannonade upon it which lasted the whole day, and the enemies having no ammunition began to evacuate the fort during the night, but it was surrounded by the troops, who succeeded in capturing, among others, three of the chief miscreants, namely, Ajît Singh, who had killed the Mahârâjâ, Lahnâ Singh who had murdered the son of the latter, and Misr Ghasîṭâ, a close ally of the Sindhâñwâliâ Sardârs. These three men were at once executed, their bodies dragged by ropes through the *bâzârs* and streets of the city, and then left to be devoured by beasts and birds.[81]

43. When the **Râjâ Hîrâ Singh** had wreaked vengeance upon his foes, by making free use of the sword, the prince **Dalîp Singh** was placed upon the throne. Hîrâ Singh went to the *darbâr*, and was considered worthy to remain *wazîr*, but his counsellor the **Paṇḍit Jallâ,** an honest intelligent Brâhmaṇ and a good administrator, made use of severity in the execution of his duties, in which he pressed so hard upon the *amîrs* by extorting money from them that he exasperated them. Moreover **Jawâhir Singh,** one of their number, who relied upon his position as maternal uncle of the Mahârâjâ Dalîp Singh, and was the first to rebel against the haughty counsellor, was thrown into prison by the *wazîr*. Incensed at the presumption of his thus summarily dealing with her brother, the

[80] Literally meaning "pure, select," because these troops consisted only of Sikhs. The word is of Arabic origin but is used in all the Muhammadan languages.

[81] If the above abstract correctly represents the text this is a [illegible] version of these well-known events.—Ed.

Mahârâni Chandâṅ, unknown to the dominant faction, despatched a message with great secrecy to the **Râjâ Suchêt Singh,** brother of the late Dhyâṅ Singh, informing him that the whole government had fallen into disorder, that as the sovereign was a child and his *wazîr* young, Jallâ had usurped the supreme power and extorted untold sums of money, and that therefore she invited the Râjâ to introduce order into the administration by once more accepting the post of plenipotentiary *wazîr*, and becoming the lieutenant of the Mahârâjâ. Suchêt Singh immediately started with his troops from Jammûṅ in compliance with the invitation, and hastily advanced towards Lahôr till he reached the banks of the Râvî, where he left his troops and crossed the river with an escort of only a hundred men, marching till he reached the tomb of Shêkh Kaḍaṅ[52] at a distance of three miles from Lâhôr, where he encamped, and hoped his nephew Hîrâ Singh together with Paṇḍit Jallâ would meet and welcome him. His expectations, however, proved futile, because Hîrâ Singh, now fully aware for what purpose his uncle had so quickly arrived from Jammûṅ, was determined to repel him, and, on being informed of his approach, forthwith harangued the Sikh Khâlsâ troops, promising a gold *batkî*[53] to every man who would follow him to attack his uncle. Suchêt Singh had been encamped only one day when the Khalsâ troops arrived, surrounded the tomb, and at once not only destroyed it and the adjoining buildings and their tenants the *faqîrs* with their artillery, but exterminated to a man the whole escort of **Suchêt Singh,** as well as himself.

After this action Hîrâ Singh manifested grief for the loss of his uncle, but afterwards honestly paid the golden *batkî* he had promised to each soldier, although the sum was so large that the government treasury suffered very considerably. When a month had elapsed after this affair, one of the Sindhânwâlià chiefs and malcontents **'Atar Singh** by name, who had not been slain with the others—when the Khâlsâ troops avenged upon them the murder of Shêr Singh, and placed Dalip Singh on the throne,—but had escaped to the British territory, being determined to wrest from **Râjâ Hîrâ Singh** the power he enjoyed, and to take vengeance, had recourse for this purpose to **Bîr Singh** *faqîr* who dwelt on the Satluj, and enjoyed great reputation for sanctity as a *gurû*, as well as considerable influence with the army; and induced him to address it, in order to obtain its aid to overthrow the government of the Râjah. When Hîrâ Singh was informed of these machinations, he summoned a *pañch* (*pañchayat*) of petty officers commanding a company of soldiers, to his presence—because they were able to influence the privates much more than the higher officers could, whom they also greatly exceeded in numbers—distributed money among them, and thereby so alienated them from the *gurû*, that they attacked his domicile with musketry. He was killed by a stray bullet and 'Aṭar Singh was also routed with his adherents. Some months afterwards, the uncle of the Mahàrajà, **Jawâhir Singh,** whose imprisonment does not appear to have been very strict, found opportunity to bribe a number of the officers of the army, by promising to each of them a necklace of jewellery, and holding forth to each trooper the reward of a *nâm*,[53] to win them over to his cause. He succeeded so well that the officers despatched a memorandum to Hîrâ Singh, promising to remain loyal to him if he agreed to deprive his counsellor **Jallâ** of power, who had by his tyranny incurred universal reprobation, but threatening him with death in the contrary case. When **Hîrâ Singh** became aware of his danger, he swore that he would never betray his friend, and would remain faithful to him even at the risk of his own life, but when he perceived that it was actually in peril, he mounted an elephant, and fled from Lâhor with a few trusty followers intending to take refuge in Jammûṅ. The news of his flight spread quickly, and he had just reached the Râvî when he was overtaken by thousands of Sikhs, who at once attacked him; whereon he alighted from his elephant, and defending himself with his handful of trusty mountaineers, fell sword in hand. On the same occasion also Jalla was slain with **Sôhan,** the young son of the Mahârâjà Gulâb Singh of Jammûṅ, whereon the Sikhs returned victorious to Lâhôr.

44. **Jawâhir Singh,** the maternal uncle of Dalîp Singh, now assumed the reins of

[52] Shêkh [illegible] Miân K[illegible]

[53] Name of [illegible] five [illegible] value.

[53] The *nâm* is, according to a marginal note, a gold jewel and ornament, called also [illegible].

government, and faithfully kept his promise of presenting the Sikh troops with golden necklaces, but after one *lákh* of them had been distributed the treasury was empty; whereon the troopers plundered all the government property they could get hold of. Jawâhir Singh then despatched a force to invade Jammûñ, but only one encounter took place, in which the Sikh **Sardâr Fatḥ Singh** lost his life. Then **Gulâb Singh** held out bribes to the troops and marched with them to Lâhôr, where he fulfilled his promise. The prince **Pêshaurâ Singh** a son of the Mahârâjâ Ranjît Singh, who likewise entertained the ambition of becoming master of the Pañjâb, marched with his adherents to Aṭak, and took possession of the fort; whereon Jawâhir Singh despatched troops in command of **Chhatar Singh Aṭârîwâlâ** with other forces from Ḍêrâ Isma'îl Khâñ, and they besieged the prince, who then represented to them, that being a son of Ranjît Singh equally with Dalîp Singh, he ought not to be treated as a rebel, but should be received into favour after promising to be loyal to the existing government. After this declaration had been communicated to Jawâhir Singh, he learnt that the troops sent against the pretender were favourable to his claims, and accordingly devised the stratagem of presenting him with a *jâgîr* of a *lákh* of rupees, on condition of his surrendering the fort. The prince Pêshaurâ Singh then opened the gates, and Jawâhir Singh having been apprized that he had fallen into the trap, at once indited a letter to his faithful partizan **Fatḥ Khâñ**, who commanded a portion of the forces, to slay the prince, for fear he might again lay claim to the throne. This order no sooner arrived than it was executed, and Fatḥ Khân, besides obtaining a large sum of money, was rewarded also by being appointed governor of the Hazârâ district. When it became generally known that the prince had been killed at the instigation of Jawâhir Singh, not only his adherents, but the whole army manifested such exasperation, that the mother of the Mahârâjâ Dalîp Singh was frightened, and made efforts to propitiate it, but in vain. The general reply was that he who had encompassed the murder of Ranjît Singh's son had thereby forfeited his own life, and Jawâhir Singh was summoned to present himself before the troops to offer excuses, if he had any to make. The *amîrs* of the court trembled with fear, and arrived themselves, after consultation, at the conclusion that they would confront the danger with Jawâhir Singh, the Mahârânî, and the Mahârâjâ Dalîp Singh, which last was to plead for the life of his uncle, uniting his request to the prayer of his mother. When the exalted party arrived in the camp, and the troops perceived **Dalîp Singh,** they unanimously saluted him, took him down from the elephant, but forthwith cut to pieces **Jawâhir Singh** who had remained in the *haudâ*. On beholding this scene, Dalîp Singh wept bitterly, and the **Mahârânî** broke out in loud wailings, but took charge of her brother's corpse, which was conveyed to the fort, and afterwards received the honours of a funeral. The army now became so demoralised that no one any longer kept authority, and much disorder ensued. The *pañch* of petty officers, apprehending no coercion, began to plunder in all directions, mulcting the rich and frightening the poor. No trace of subordination and discipline remained, and every common soldier fancied himself an officer, and obeyed only his own inclination. This state of affairs having become unbearable to the nobles of the court, they were most anxious to put an end to it at any price, and at last arrived at the conclusion that the only way to rid themselves of the excesses of the army would be to goad it on to wage war against the **English,** who would be sure to vanquish it, though there was no other power in existence strong enough to do so. Accordingly the ringleaders of the army were requested to come to the palace, and when the crowd of disorderly *pañches* arrived, the **Râjâ Lâl Singh** harangued them, praised them as lion-hearted valiant Khâlsâs—the epithet most flattering to them—and told them that the English had taken possession of the *qasba* of Murân on the banks of the Satluj, and would, unless checked, be sure to encroach upon this side likewise. It was therefore their duty boldly to wage war against the English, and afterwards it would be their pleasure to enjoy supreme power over the country, there being no forces in existence able to cope with the Sikhs. The vanity and ambition of the troops having thus been brought into play, and raised to the highest pitch, the proposal was accepted with acclama-

tion; the general impression being that the English, who were *only Franks* and could not prevail against the Khâlsâs, would be conquered, unmercifully destroyed, and thus deprived of Hindustân.

45. After having made some preparations for a campaign the turbulent army marched to the Satluj, whilst all the Pûrbiâs and white soldiers advanced towards them from the other side, led by their Commander-in-Chief and by the Governor-General himself, who sent first a memorandum to the Sikh army to the effect that the British Government had always been on friendly terms with Ranjît Singh, and that there being no occasion for hostilities, the troops ought to return to their homes. This advice remaining unheeded the contest began, and the first action took place at **Mûdkî,** in which 30,000 Sikhs took part with 32 pieces of artillery, the Commander-in-Chief being **Lâl Singh,** who was outwardly a friend to the Sikhs, but inwardly their worst enemy. The Sikhs who made the attack fought valiantly and caused rivers of blood to flow. The English advanced and the noble (political) agent **Broadfoot** was with them till the evening, when he was slain on the battle-field, which event emboldened the Sikhs. Nevertheless Lâl Singh began to retreat, and the Sikhs perceiving this, followed his example, whereon the English were not slow in pursuing them, taking also possession of their artillery. The next action took place at **Firôzpûr**[85] where ten regiments and the full *paltans* of the Sikhs fought, and having also 100 pieces of artillery at their disposal, they boldly advanced to open the battle. The English had two noble officers, one **Hardinge,** the valiant *amîr* and Governor who was a lion of war, and the Commander **Gough** celebrated for his courage. They ordered the troops to make a simultaneous onslaught, one side of the plain being occupied by the white soldiers who rained cannon balls upon the Sikhs, whilst from the other Hindustânî troops attacked them. When the fight was at its hottest, and the ground had become a tulip-field of blood, **Râjâ Têj Singh,** the commander of the Sikhs, found it unsuitable to hold his ground any longer, and retreated; whereon the whole Sikh army fled, and on this occasion the treasure with all the ammunition and 72 pieces of artillery fell into the hands of the English.

(*To be continued.*)

MISCELLANEA.

CURIOSITIES OF INDIAN LITERATURE.

SOME QUAINT BLESSINGS.

The following blessings were collected by me in Mithilâ. They are much admired by the Paṇḍits :—

II.

गवीशपत्रो नगजार्तिहारी
कुमारतातः शशिखण्डधारी ।
लङ्केशसम्पूजितपादपद्मः
पायादनादिः परमेश्वरो वः ॥

This is capable of either of two interpretations as follows :—

'May the Supreme Lord without beginning (Śiva)—who is mounted (पत्रो) on the lord of cows, (*i.e.* a bull), who is the destroyer of the pains of the Daughter of the Mountain (Pârvatî), who is the father of Kumâra, who bears the crescent of the moon and the lotuses of whose feet were worshipped by the Lord of Lankâ (Râvaṇa),—protect you.'

The other interpretation is obtained by cutting off the first syllable of all the above epithets as follows :—

'May the Supreme Lord without beginning (or found by omitting the beginning of the above epithets) (Krishṇa),—who is mounted on the lord of birds (वि + ईश *i.e.* a peacock), the destroyer of the pains of the elephant (गजार्तिहारी), the father of Mâra (मारतातः), who is decorated with a peacock's tail (शिखण्डधारी), and the lotuses of whose feet are worshipped by Kêśa,—protect you.

III.

विराजराजपुत्रारेर्यन्नाम चतुरक्षरम् ।
पूर्वार्धं तव शत्रूणां परार्धं तव वेश्मनि ॥

'May the first half (मृत्युं *i.e.* death) of the four syllabled name (मृत्युंजय) of the enemy of Pradyumna, be in the house of thy enemies, and the second half (जय *i.e.* victory) in thine.

Here वि = a bird. विराज = Garuḍa.

विराजराज = Krishṇa. विराजराजपुत्र = Pradyumna.

[85] [Really at Pêrûshahr or Ferozeshah, eight miles from Firôzpûr on the Lôdiânâ Road.—ED.]

ZOROASTRIAN DEITIES ON INDO-SCYTHIAN COINS.[1]

BY M. AUREL STEIN, Ph.D., M.R.A.S.

ALTHOUGH the latest in that long series of numismatic relics, which form our main documents for the history of the Greek and Scythic rulers of Bactria and India, the coins of the Turushka kings, are perhaps the most important for the student of Aryan antiquities. Their extremely varied reverses exhibit in well-executed designs and clearly legible characters the figures and names of numerous deities, many among which, as already recognized by the first observers, bear an unmistakably Zoroastrian character. These representations are, in fact, almost our only contemporary documents for that most obscure period in the history of Zoroastrian worship which intervened between the fall of the Ancient Persian Empire and the Sassanian revival. The identification of the types represented must therefore be considered a task of the first importance for the student of the Iranian Religion. On the other hand, Historical Grammar can attach scarcely less importance to the elucidation of the legends, considering that they are clearly written phonetic specimens of the language, which can be dated, with something like chronological exactness, since the late Mr. Fergusson's ingenious discovery[2] has revealed the identity of the Śaka era (starting from A.D. 78) with the era employed by the Turushka kings of our coins in their Indian inscriptions.

The philological enquiry into the types and legends of the Indo-Scythic coinage has made but comparatively slow progress since the days of Prinsep and Lassen: but perhaps it may now be resumed with some chance of success, since Dr. von Sallet's exhaustive monograph,[3] based on true historical criticism, and more recently Prof. P[illegible] Gardner's excellent catalogue[4] of the [illegible] have placed us in full possession of the [illegible]matic facts. At the [illegible] great advance made in our knowledge of Zoroastrianism, through the more extensive study of its sacred literature, enables us to utilize, with a clearer view of the issue, the fresh evidence of the coins. We shall attempt here to collect in a condensed form the information which that remarkable coinage affords on the state of Iranian religion and speech in the centuries preceding the Sassanian epoch.

For the historical facts connected with the rule of the Yueh-chi or Kushans in India we can refer our readers on the present occasion to the above-named publications of von Sallet and Prof. Gardner, and to the excellent account contained in the late Prof. von Gutschmid's article on Persia in the 9th Ed. of the *Encyclopædia Britannica*. They afford, however, but little material for the solution of the question that mainly interests the Iranian scholar—*viz.*, how and where these tribes of evidently non-Aryan descent became so deeply penetrated with Zoroastrian influences. But from Chinese annals we are able to fix the date of the invasion, which brought the Yueh-chi under King Kadphises south of the Hindu-Kôsh, at about B.C. 25, and a century later we meet with distinct traces of Zoroastrianism among them. King **Kanishka** (on the coins **KANHPKI**), whom Buddhists in their traditions claim as the great patron of their church, and with whom the Śaka era originated (A.D. 78), is the first known to employ Iranian types and "Scythic" legends on his reverses. His successor was **OOHPKI (Huvishka)**, whose inscriptions range from the year 33 to 51 of the Śaka era (A.D. 111-12[illegible]). His very numerous [illegible], on which Greek legends have now [illegible] disappeared, [illegible] some new types of Iranian [illegible] to the already large pantheon of K[illegible]. The issues of Huvishka are the [illegible] Indo-Scythic coinage with which we are [illegible] on the present occasion, as the [illegible] coins of a later king, who bears [illegible] of **BAZOΔHO** (Vasudêva in the [illegible]), are restricted in their types to the more or less barbarous representations of a few non-Zoroastrian deities.

In the Plate which accompanies our remarks

---

[1] Adapted [illegible] *Babylonian* [illegible]

[2] *On the Śaka, Sa*[illegible] *J. R. A. S.* 1880, p. 259 sqq.

[3] [illegible] *Grossen in Bactrien und I*[illegible] 1879.

[4] [illegible] *Greek and Scythic Kings of Bactria* [illegible] *British Museum*, London, 1886.

on the various types are represented well-preserved specimens of Indo-Scythian coins in the British Museum, for the casts of which we are indebted to the kindness of Prof. Gardner. This obviates the necessity of noticing in detail the characteristic designs of the types and the not less peculiar writing of the legends. The highly original treatment which the Greek characters have received at the hands of the Indo-Scythic die-cutters deserve special investigation from epigraphists; but for our present object it may suffice to call attention to the general clearness and fluency which distinguishes very favourably this apparently barbarous writing on the gold coins of Kanishka and Huvishka from the cramped and ill-shaped legends of their Scythic predecessors.

In the large assembly of Zoroastrian deities, which the coins of their Scythic worshippers bring before us, **Mithra**, the God of Heavenly Light, may well claim precedence, from the important position he occupies in Avestic mythology as well as in Eastern cult generally.

The Iranian Mithra has been long ago recognized in the very characteristic type of the **Sun-god**, that on the rare Greek coins of Kanishka bears the name of **HΛIOC**. Not less varied than the representations of the god himself are the forms in which his Iranian name appears. **MIOPO** and **MIIPO** (figs. i. and ii.) are the most frequent readings, and represent but slightly varied pronunciations of the same form **Mihr**, which the Avestic name must have assumed at a comparatively early date through the regular phonetic change of *th* into *h*. **MIIPO** corresponds to the Indianized form *mihira* (*mihir*), with the well-known interposition of a secondary vowel before *r*; **MIOPO** represents *mihr*, and gives us a clear instance of the phonetic rendering of *h* by **O** (as in **OOHPKI** = *Huvishka*), to which we shall have to refer in the further course of our enquiry. The closing **O**, which recurs at the end of almost all Iranian names of the coins, cannot as yet be accounted for with any certainty. The historical study of the Iranian language leads us to believe that the final vowel of Zend and Old Persian words was lost in their transition into the phonetic state of Middle Persian or Pahlavî; but as the latter is in its main characteristics reflected by the legends of the Indo-Scythic coinage, this closing **O** cannot well be considered a representative of the old thematic vowels. We may, however, look for some connexion between this **O** and the sign which is added to so many Pahlavî words with consonantal ending, and is generally transcribed by $\bar{o}$.

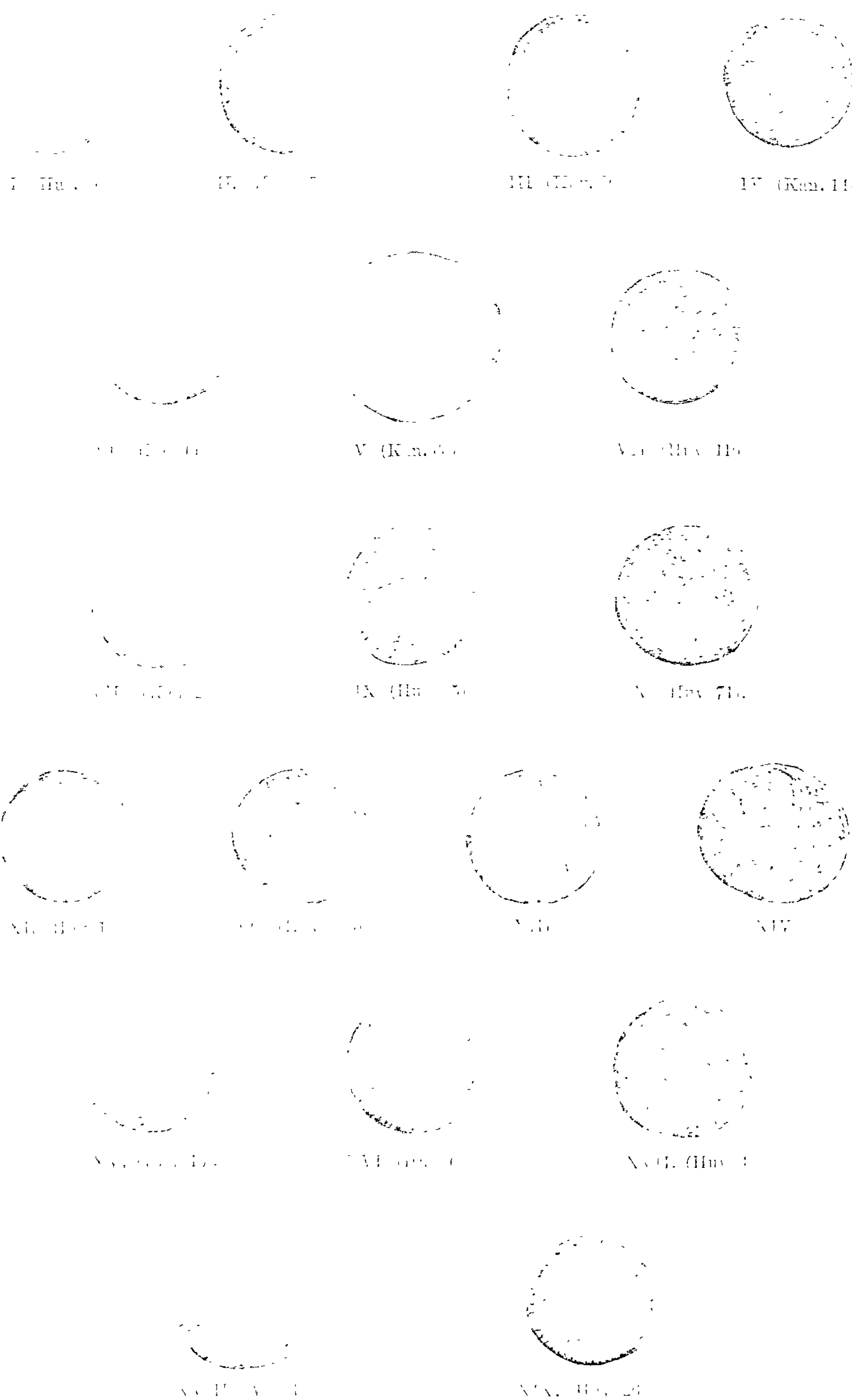
Besides the above forms, we meet with numerous variants of the same name, *viz.*— **MЄIPO, MIYPO, MYIPO,** on Kanishka coins,[5] and **MIYPO, MYPO, MIPO, MIPPO, MIIOPO, MOPO,** on those of Huvishka.[5a] Some of these forms may be viewed as individual attempts to give a phonetical equivalent for the difficult aspiration; others, like **MIPPO, MOPO** are scarcely more than mere blunders of the die-cutters.—From this list of forms the supposed **MIΘPO** has been justly eliminated by von Sallet, as this archaic form can nowhere be read with any clearness, and would, in fact, not well agree with the general phonetic character of the names represented.

It is of considerable interest to compare with the Scythic name of Mithra the various forms in which the name of the Iranian month **Mihr** appears in the list of Cappadocian months. This list has been preserved for us in a chronological table, which compares the calendars of different localities, found in numerous Greek MSS. of Ptolemy's *Canones*. It has been carefully examined by Benfey,[6] and proved to contain the names of the months in the Zoroastrian calendar, as still in use in Cappadocia under the Roman rule. Now Iranian months are designated by the names of their respective tutelary deities, and as some of the latter are represented on the Scythic coinage, the Greek transcriptions of their names thereon (which are found, too, in a much later form in the lists of Persian months given by Isaacus Monachus and other Byzantine chronologists) will give us much valuable help for the identification of the Scythic forms.

[5] See Prof. Gardner's *Cat.* pp. 131, 134; and von Sallet *Nachfolger*, p. 197.

[5a] See *Cat.* pp. 141—143, 155, 157; von Sallet, p. 202, 204.

[6] [illegible] *die Monatsnamen einiger alter Völker*, Berlin, 1836, p. 76, sqq.—I regret that I have not yet been able to consult an article by Prof. De Lagarde on this subject in his *Abhandlungen*, to which Prof. Hoffmann of Kiel has kindly drawn my attention since my arrival in India.



COINS OF THE TURUSHKA KINGS

The MSS. of the *Hemerologium*, in which are contained the Cappadocian names, are divided into two classes. One of these presents us with the forms *Μιηράν*, *Μωαρ*, *Μυοι*, *Μυαρ*, which all correspond with more or less accuracy to the original *Mihr*, the **MIIPO, MIOPO** of our coins; the other gives the older form *Μιθρί*, which may have been taken from an earlier compilation. The later lists of Byzantine origin represent the Persian *mihr* by *Μεχιρ* or *Μεχερ*.[7]

The representation of the god makes it sufficiently evident that the Avestic **Mithra**, already closely connected with the Sun, had by that time become completely identified with it. None, however, of those numerous symbols, proper to the Western DEO INVICTO SOLI MITHRAE, are to be found on the types of **MIOPO.**

The type of **MIIPO** appears also in conjunction with the not less characteristic representation of his heavenly brother the **Moon-god, MAO,** on a coin of the British Museum.[8] The types of the latter resemble in all important features that given in fig. iii., and agree well with the masculine conception of the Avestic Moon-god, called *máo* (=Skr. *mâs*) or (with thematic stem), *máoṅha*. His name becomes **Mâh** in Pahlavî and modern Persian, and this is the form which is represented by **MAO** of the coins: but whether the **O** corresponds to *h* as in **MIOPO,** or is merely the closing **O** discussed above, cannot be decided. On two coins of the British Museum[9] we find the fuller transcription **MAOO,** which probably must be read *máhō*, and on a Greek coin of Kanishka[10] the usual male figure of the moon deity is accompanied by the legend **CAΛHNH.**

We may here conveniently notice a comparatively rare type of Kanishka (fig. iv.), representing a bearded god with a trotting horse beside him, as, on account of the legend, we have to identify this deity with another, but less known, inhabitant of the ethereal regions in Avestic mythology. Although the former reading **APOOACΠO** had to be abandoned in favour of **ΛPOOACΠO** on the evidence of the well-preserved specimens examined by von Sallet and Prof. Gardner,[11] the substantial identity of the word with Zend **Aurvaṭ-aspa,** first proposed by Windischmann, can scarcely be doubted. The Avestic word, which literally means "swift-horsed," is the common epithet of both the sun (*hvarekhshaēta*) and the god **Apãm-napâṭ**, "the Son of the Waters," whose original character as an old Aryan personification of the Fire, born in the clouds, *i.e.*, the Lightning,[12] can still be traced in Avestic passages. But having already observed that the Sun-god became merged with Mithra into the single type of **MIOPO,** we may safely conclude that the **ΛPOOACΠO** of Kanishka is "the High Lord Apãm-napâṭ, the swift-horsed" of the *Avesta*. The puzzling initial **Λ** of the Scythic legend may be explained with Prof. Hoffmann[13] as the first trace of the phonetic process, by which *Aurvat-aspa*, the name of King Vîshtâspa's father, was turned into *Lôhardsp*, *Luhrâsp*, in Pahlavî and Persian. This process, itself, however, is by no means clear, especially as we find the phonetically correct representative of the Zend *aurvaṭ-aspa* still preserved in the name Arvandâsp which is mentioned in some genealogical lists as that of King Vîshtâspa's grandfather. If **ΛPOOACΠO** is to be considered as the link between the Zend form and the modern Luhrâsp, it must probably be read ***Lrohaspô,** the second **O** representing the sound *h*, to which *ṭ* was reduced in due course by its position between two vowels.

The type of the Iranian **Wind-god** (running bearded figure with loose hair and floating garment) is very frequent on the bronze coins of Kanishka (fig. v.).[14] and is, artistically, perhaps the most original conception of the whole series. In his highly characteristic figure and the legend **OAΔO** it was not easy to mistake **Vâta** the "strong Mazda-created Wind" of the *Avesta*. The form **OAΔO** is of great interest to the grammarian, as it proves most conclusively that the change of intervocal *t* into *d*,[15] which is ignored in the artificial spelling of Pahlavî (*vâtô*), was an accomplished fact as early as the first century of our era.

[7] Comp. *Chrysococcas* in Hyde *Religio Vett. Persarum*, 1700, p. 191: and Reland, *Dissertat. Miscellan.*, 1706 (Part ii p. 111)

[8] Huvishka, Nos. 38, 40.

[9] *Cat.* Pl. xxvii. 24.

[10] *Cat.* Pl. xxvi. 1.

[11] Comp. Kanishka, Nos. 14, 15 in Br. Mus. *Cat.*

[12] Comp. the *Apâm-napât* of Vedic Mythology.

[13] *Abhandlungen* of the German Oriental Society. Vol. VII. 5, p. 150.

[14] See *Cat.* p. 135.

[15] Cf. Zend *vâta* with Persian *bâd*.

The flames rising from the shoulders of the god, whose most common type is given in fig. vi., would clearly proclaim him a personification of the **Fire,** so important for the Zoroastrian cult, even if the legend were open to any doubt. **ΑΘΡΟ,** with the variant **ΑΘΟΡΟ** on a gold coin of Huvishka,[16] which represents the god in the very characteristic type of **Hephæstus** with hammer and tongs is directly derived from the Zend *âthr*, the weak form of stem *âtar* "fire," and is, therefore, substantially identical with the Pahlavî *âtr*[17] and the Persian *adhar* "fire." The latter form has survived side by side with the more common *âtash* (a descendant of the ancient nominative *âtars*), chiefly as the name of the 9th Zoroastrian month, which is transcribed by Isaacus Monachus and other Byzantine chronologists as ἀδερ. In the Cappadocian list of months, again, we find there is the older form Ἄθρα, which is, in fact, a close approach to **ΑΘΡΟ** of our coins. **Âtar,** "the son of Ormazd, the most great and beneficent Deity," is, in accordance with the all-important part which the sacred fire plays in the Zoroastrian cult, frequently addressed in the hymns and prayers of the Avestic ritual; and there is, besides, a special supplication (*Nyâish* V.) devoted to him. The tongs, with which **ΑΘΡΟ** is always represented, are mentioned among other instruments, required for the proper care of Ormazd's fire in a passage of the *Vendîdâd* (xiv. 7).

In a god of apparently similar character (fig. vii.), who on the gold coins, especially of Huvishka,[18] is frequently represented as holding fire in his hand, Prof. Hoffmann has very properly recognized a representation of "the mighty kingly glory," the *kavaêm qarenô* of the *Avesta*. This deity's name reads **ΦΑΡΡΟ** or **ΦΑΡΟ** and corresponds to the Persian [illegible] forms being derived from *farna*, [illegible] the phonetic equivalent of the Zend [illegible] the Ancient Persian of the Achae[illegible]. The Zend [illegible]-*qarenaṅ*, [illegible] thus becomes, [illegible] a proper [illegible] Persian, **ΥΝΔΟΦΕΡΡΗΣ** [illegible] coins of an [illegible] Pharnaco-tis of Pliny, (vi. 25), has been recognized by the present writer[19] in the derivative form *qarenaṅhaiti*, found as a river name in the *Avesta*. The "Kingly Glory," which is a Zoroastrian personification of lawful rule over Irân, is well characterized by the sceptre in the hand of **ΦΑΡΡΟ** on some types of Huvishka.[20] Its great importance for Zoroastrian mythology is indicated from the length of the *Yasht* (xix.), devoted to its praise, and the numerous legends which have gathered around the **Farr-i-kayân** in later Persian tradition.

The god **ΟΡΛΑΓΝΟ,** whom a type of Kanishka (fig. viii.) represents in the warlike attire of a Scythian, was first recognized by Benfey as **Verethraghna,** the Iranian war-god. The form **ΟΡΛΑΓΝΟ** presents us with a considerably older form of the name than the Pahlavî Varahrân (the Οὐαραράνης of the Greeks), which, in modern Persian, is still further reduced to Bahràm. **Λ** as a rendering of the sounds *thr*, or more probably *hr*, is of considerable interest for the history of Iranian phonetics. **ΟΡ=** *vere* will prove useful evidence in favour of the explanation we have to propose for **ΡΑΟΡΗΟΡΟ.**

In the bird, which appears sitting on the god's helmet, we recognize the bird **Vârĕñjana** (or **Vâraghna**) of the *Avesta*, which was evidently sacred to Verethraghna, as the healing and protective power of a feather of that bird, if worn as an amulet, forms the object of special comment in the *Yasht of Bahrâm* (xiv. 34, sqq). The eagle-like appearance of the bird on our coins seems to point to a closer relationship between the bird Vârĕñjana and the **Simurgh** (*i.e.*, * *saênô mereghô* "eagle bird") of the *Shâh-nâma* legend than hitherto supposed.

With Verethraghna we may connect most appropriately the winged goddess, who appears in the distinct type of a Nikê holding wreath and trophy-stand on some rare gold coins of Huvishka[21] (fig. ix.). Her name, which, with a slight variation, is written both **ΟΑΝΙΝΔΑ** and **ΟΑΝΙΝΔΟ,** induces me, in conjunction with the very characteristic type, to identify her with the female genius, whose name, **Vanaiñti uparatât**, "victorious superiority," is invariably

[16] [illegible]
[17] [illegible]
[18] [illegible] pp. 146 ?

[19] *Ante*, Vol. XV. p. 21.
[20] Comp. *Cat.* Pl. xxviii. 26-29.
[21] *Cat.* p. 147.

coupled in all formulas and invocations of the *Avesta* with that of Verethraghna.[22] We prefer this explanation all the more to the hitherto accepted theory, which identified **OANINΔA** with the star **Vanañt** (a male deity!), as it disposes effectually of the two difficulties involved by the latter. Both the female representation of **OANINΔA** and the *iota* of the name are now easily accounted for: the former by the feminine gender of *vanaiñti (uparatât)* and the latter by the well-known phonetic influence of epenthetic *i*.

The type shown in fig. x. presents us with unusual difficulties. It is found only on a unique gold coin of Huvishka, now in the British Museum,[23] and is accompanied by a legend, which has sorely puzzled numismatists by its curiously contracted characters. The late Mr. Thomas identified the figure with an archaic representation of Artemis, but the supposed resemblance to the type of a gold coin of Augustus has been disputed by von Sallet.[24] The bow and arrow in the hand of the deity are, however, unmistakable and may give us, perhaps, some clue to its true character. Scanning the ranks of Zoroastrian deities, we cannot help being reminded of **Tishtrya**, the star **Sirius**, whose later name, **Tîr**, in Pahlavî and Persian actually means "arrow." That the word in this second meaning is etymologically derived from the Zend *tighri*[25] is on the one hand certain; on the other, there are very great grammatical objections against a direct derivation of Tîr, "Sirius," from the Avestic word Tishtrya. We are thus led to suspect a replacement of the genuine derivative of *tishtrya* by the more common word for "arrow," which, in popular conception, was evidently an attribute of the star. In a passage of the *Tîr-Yasht* (viii. 37) we find the swift flight of the star Tishtrya directly compared with that of an arrow.[26]

The legend of our coin, to which we must now turn, has been read **ZEPO** by Mr. Thomas, and, with greater accuracy, **MEIPO** by Herr von Sallet. As, however, the latter's reading supposes a ligature between **M** and the following **ЄI**, which is unparelleled on Scythic coins, we shall scarcely be blamed for not surrendering at once on this particular point even to so great an authority. Taking the combined characters **ЄI**, which are indeed perfectly clear, for granted, and viewing the preceding strokes as a single independent character, we have no difficulty in recognizing the letter **T**. Its rounded shape is in perfect keeping with the general character of Scythic epigraphy, and the explanation of its having so long escaped discovery is contained in the fact that **T** is exactly one of those few letters which by chance have not yet occurred on the Turushka coinage.

In order to obtain the link which is wanted in the chain of evidence for the identification of the god, whose name we now read **TЄIPO**, we have once more to recur to the list of Cappadocian months. There we find the name of Tîr, the fourth Zoroastrian month, rendered in the two best MSS. of the second class by Τειρει, a form to which the variants of the other two MSS. Τῆρι and Τειδ (for ***TЄIP**) may easily be reconciled. Whatever explanation we shall have to give in future of Τίρηξ or Τίριξ, the reading of the first class of MSS. and probably a much older form, it will not affect the conclusive evidence we derive from Τειρει for the substantial identity of **TЄIPO** with **Tîr**. It will be an object for future research to determine the exact phonetic stage in the transition from *tighri* to *tîr*, which has been recorded by the curiously identical spelling of the Cappadocian and Scythic forms.

In view of the philological evidence given above for the identity of **TЄIPO** with the later name of Tishtrya, we need not attach much importance to the difficulty presented by the apparently female character of the type. The latter is evidently a mere reproduction of the Greek Artemis, which was a type ready at hand for an Indo-Scythian die-cutter wishing to exhibit in his type the characteristic emblems of the Deity, bow and arrow.

If the god who appears in figs. xi. xii., and in similar types on the gold coins of Huvishka[27] has hitherto completely escaped recognition, it was certainly not owing to want of clearness in the legend or of dis-

[22] Comp. *e.g. Yasna*. i 6; *Vispered*, i 6; *Yasht*, xiv. 0.

[23] *Cat.*, pp lxi and 144.

[24] *op cit.* p. 202.

[25] Comp. *Eustathius ad. Dionys.*, 994: Μῆδοι γὰρ Τίγριν καλοῦσι τὸ τόξευμα.

[26] My attention was called to this passage by Prof. Darmesteter, who further suggests an etymological connexion between *tishtrya* (*tij-tr-ya) and *tigh-ri* (*tîr*).

[27] Comp *Cat.* Pl. xxviii. 17-19

tinctive character in the type. The latter presents us in all its variations with the well-modelled figure of a warrior in full Greek armour, with helmet, spear and shield: which last, on a single specimen in the British Museum,[28] is replaced by a weapon resembling a hook. The legend reads on all well preserved specimens[29] with uncommon clearness **PAOPHOPO** (see fig. xi.), with the exception of Huvishka 106 (fig. xii.), where we find the variant **PAOPHOAP**. No attempt has yet been made to interpret this remarkable name either with the help of Iranian or Indian philology; but the application of a phonetic law, long ago recognized in other instances, will enable us to identify **PAOPHOPO** with the well-known name of a Zoroastrian deity.

In our opening remarks we had already occasion to mention **KANHPKI** and **OOHPKI** as the Scythic equivalents on the coins for the names **Kanishka** and **Huvishka** of the inscriptions and later texts. A comparison between these double sets of forms shows at a glance that Scythic **P** represents necessarily the same letter as the *sh* of the Indian forms. That this Scythic sound, which in the Greek writing of the Scythic coins was rendered by **P**, really bore the phonetic character of *sh*, can be conclusively proved in the case of a third doublet, **KOPANO** = **Kushan**, which was first identified by General Sir Alexander Cunningham as the name of the ruling Indo-Scythian tribe. **KOPANO**, on the obverses of the Turushka coins, follows immediately upon the name of the king, and corresponds in this position to **XOPAN** of the legends of **Kadaphes** (one of Kanishka's Scythic predecessors), which in the Ariano-Pali of the reverses is actually translated by *Kushanasa*.[30] That the latter form represents the genuine native pronunciation of the name cannot be doubted, since we have, as to the *sh*, the independent testimony of the Chinese transcript in the annals of the second Han Dynasty, which tell us that all the peoples under the Yueh-chi (Indo-Scythian) rule, when speaking of their sovereign, call him the King of the *Kuei-shuang* —*i.e.* Kushans.[31]

If we suppose that the phonetic or graphic rule of **P** representing *sh*, which is so evident in the case of the Scythian words **KANHPKI**, **OOHPKI, KOPANO**, applied as well to the corresponding sound *sh* in the Iranian elements of the legends, we shall have no further difficulty in identifying **PAOPHOPO** with the third *amesha-speñta* or archangel of the Zoroastrian creed, whose Avestic name, Khshathra-vairya, "perfect rule," becomes by ordinary phonetic changes **Shahrêvar** in Pahlavî and Persian. Of this latter form of the name **PAOPHOPO** is an exact transliteration. For the first **O** representing *h* we can adduce the evidence of **MIOPO** (and perhaps **ΛΡΟΟΑΣΠΟ**), and for the second **O** = *va* we have that of **ΟΡΛΑΓΝΟ** and the still more convincing proof of the variant **PAOPHOAP** (see fig. xii.), which actually presents us with the fuller spelling of the last syllable *var*.

Shahrêvar appears already in the *Avesta*, what he is *par excellence* in later Zoroastrian tradition, the genius of metals; and the representation of **PAOPHOPO**, in full metal armour, with Greek helmet and shield, is therefore in signal agreement with the cosmologic character of the Zoroastrian deity.

The MSS. of the *Hemerologium*[32] give the name of the 6th Cappadocian month (corresponding to the Pârsî Shahrêvar) in various forms, *Ξανθηρί* (4 MSS.), *Ξανθυρί*, *Ξανθριόρη*, *Ξαθρι*, etc., all of which show a much closer approach to the original **Khshathra** (*Ξανθρ*, *Ξανθ*)-**vairya** (*ηρί i.e.*, **Fηρί*, *υρί*), than **Shahrêvar** = **PAOPHOPO**. *Ξανθριόρη* is of peculiar interest as marking the transition from the Zend form, of which it still keeps the Ξ and *θ*, to **Shahrêvar** = **PAOPHOPO**. It may, however, be doubted whether the apparently more antique character of these Cappadocian forms is not merely due to learned archaicism, as in the case of the form *shat(r)-vairô*, which is used in Pahlavî texts indifferently with the genuine *shahrêvar*.

Late Greek transcripts of Shahrêvar are Σαχριοῦρ of Isaacus Monachus and Σαρεβαρ.[33]

PAOPHOPO, however, is not the only puzzle of the Indo-Scythic legends that finds its simple solution by the assumption that the character **P** may also represent the sound *sh*.

---

[28] Pl. xxviii. 10.

[29] For a wholly barbarous reproduction, see *Br. Mus. Cat.* Huvishka 104.

[30] Comp. *Cat.* p. 123.

[31] Cp. *Journal Asiatique*, 1883, t. ii. 325.

[32] See above, p. 90.

[33] See Hyde, *op. cit.* p. 191.

For although it is actually on the obverses of Kanishka and Huvishka that we meet with the most convincing examples of **P**=*sh* (**KANHPKI** = Kanishka, **OOHPKI**= Huvishka, **KOPANO** = Kushan), nobody seems to have yet thought of utilizing their evidence for the enigma in the rest of the legend!

The full legends on the obverses of the Turushka coins vary merely in the name of the king. They are found on the gold coins of Kanishka: **PAONANO PAO KANHPKI KOPANO** (fig. xiii.) and on those of his successor Huvishka: **PAONANO PAO OOHPKI KOPANO** (fig. xiv.)

The only variants of any importance occur in the spelling of **KANHPKI** (once with the ending **KO**) and **OOHPKI** (written sometimes **OOHPKO, OOHPKЄ, OYOHPKI**), and can easily be ascertained from the catalogue of Prof. Gardner. The bronze coins of Kanishka bear the short inscription **PAO KANHPKI**; but those of Huvishka bear a legend, which is materially identical with that of the gold coins, but, being written in a rather barbarous fashion, was formerly misread into **PAONANO PAO OOHP KЄNOPANO.**[34] The corresponding legend of the rare Greek coins of Kanishka **BACIΛЄYC BACIΛЄωN KANHPKOY**[35] leaves no doubt as to the meaning of **PAONANO PAO.** It has been considered an established fact since the days of Prinsep that Scythic **PAO** represents "King" and **PAONANO** the plural of the same word, but no satisfactory etymology of these forms has yet been offered. The proposed identification of **PAO** with the Indian *râja* does not require a detailed refutation. We can neither suppose that the Scythians, so careful in their transcripts, should have persisted in ignoring the palatal *j*, nor that the quite modern Indian form *râo* should have appeared at that date in the Pâli vernacular, which in the inscriptions of the very same Turushka kings still exhibits the full forms *mahârâja râjâdirâja*.

As the simple **PAO** evidently expresses **BACIΛЄYC** (comp. the legend **PAO KANHPKI** of the bronze coins), we must look in **PAONANO** for a genitive plural, corresponding to **BACIΛЄωN** of the Greek legend. However, not only does Indian grammar not account for the peculiar form of this case-ending, but also the construction of the phrase is distinctly un-Indian.[36] The order of its elements (genitive plural + nom. sing.) is, on the contrary, exactly that observed in the Iranian title *shâhan-shâh* (Old Persian *khshâyathiyânâm khshâyathiya*), of which *βασιλεὺς βασιλέων* is the regular representative in Greek.

PAO and **PAONANO PAO,** *i.e.* **shâh* and **shâhanânô shâh*, are, in fact, identical with the Iranian titles **Shâh** and **Shâhan-shâh,** which we can prove from other sources to have been the distinctive appellations of the Indo-Scythian rulers. Thus, in the Mathurâ inscription[37] of the (Śaka) year 87 Vâsudêva, the **BAZOΔHO** of our coins, is called Mahârâja Râjâtirâja *Shâhi*. Again, in the *daivaputra shâhi shâhânushâhi śaka*, mentioned in the Allâhâbâd inscription of Samudra Gupta, General Cunningham has long ago recognized a direct reference to the Turushka kings, called *devaputra*, "the sons of heaven," in their inscriptions. And, lastly, we find a late, but very distinct reminiscence of these Scythic titles in the Jain legend of Kâlakâchârya,[38] which calls the princes of the Śakas, the protectors of the saint, *Sâhi* (Shâhi), and their sovereign Lord **Sâhâṇusâhi.**

The form *shâhi* (Prâkṛit *sâhi*) still preserves in its final *i* a trace of the old ending *ya* (in *khshâyathiya*), which has disappeared in the modern Persian form *shâh*. The latter form is represented by our **PAO,** which, after the analogy of **MAO** = *mâh*, we read *shâh*.

The Indian transcripts of the fuller title may furnish us with valuable help for the determination of the grammatical ending in **PAONANO,** which evidently forms a link between the ancient *khshâyathiyânâm* and the *shâhan* of the Persian title, and here we find the Prâkṛit *sâhâṇusâhi* of the Jain legend even more interesting than the *shâhânushâhi* of the

[34] Comp. *Cat.* p. lii.

[35] See *Cat.* p. 129.

[36] Comp. Prof. Oldenberg's Note *ante*, Vol. X. p. 215.

[37] Published by General Sir A. Cunningham, Archaeological Survey of India, *Reports*, Vol III. p. 35 and Plate xv. 18. Since the present paper has been sent to the press, M. Drouin has drawn attention (*Academy*, March 17, 1888) to what he calls "une éclatante confirmation de la lecture *shâhanânô shâh*," furnished by a newly discovered inscription at Mathurâ, which is dated "in the 7th year of the Mahârâja Rajadhiraja *Shâhi* Kanishka."

[38] Published by Prof. H. Jacobi, *Zeitschrift* of the German Oriental Soc., Vol xxxiv. p. 255; first translated by the late Dr. Bhau Daji, see *Literary Remains of B. D* 1887, p. 121.

Sanskṛit inscription. Prof. Jacobi has already pointed out the striking analogy between the form *sâhâṇu* and the first part of the compound *devâṇuppiya*, which is the Prâkṛit form in the Jain texts for the Pâli *devânampriya* (Sanskrit *devânâṁ priya*), "dear to the gods," the well-known epithet of Aśôka. By this analogy, which proves the Prâkṛit *-âṇu* to be the representant of the older ending *-ânaṁ* of the genitive plural, when placed in the middle of a compound, we are carried back from *sâhâṇu* to an older form, **shâhânaṁ*. This form differs substantially from **PAONANO** only in the quantity of the second syllable, which in the Scythic form must be read *ha* not *hâ*, as for the latter we had to expect **A** (comp. **MAACHNO**=Skr. *mahâsêna).* This variation, however, which was necessary in order to give to the Iranian word the grammatical appearance of an Indian genitive plural, is of special interest, as it gives a distinct hint as to the grammatical character of the ending in **PAONANO.** It is, in fact, the genuine Iranian ending of the genitive plural of thematic stems, *-ânâm* in old Persian, but *-anãm* in Zend, which we know to have been turned at a later stage of the language into the general plural termination *-ân*.[39] As this form and use of the ending occurs already in the earliest Pahlavî documents, the inscriptions of Shâpur I. (A.D. 240-270), we should feel some difficulty about explaining the preservation of a much older form of the case-ending in **PAONANO,** if we could not refer our readers to the similarly archaic forms, which the Cappadocian list of months has preserved of Âbân, the name of the 8th Zoroastrian month. The plural form *âbân* (Pahlavî *âpân*) designates the "waters," to which this month is sacred, and must be derived from a thematic form of the genitive plural in Zend, **apanãm*. Benfey's MS II., from which we have already quoted Ξανθριόρη as the nearest approach to **PAOPHOPO,** gives us here, too, the best preserved form; 'Απονεμομι represents undoubtedly **apanãm mâh.*[40]

As the same list contains the comparatively modern form Μιηράν, corresponding to **MIIPO,** it cannot date back to a much earlier stage of the language than that represented on our coins. We are therefore fully entitled to see in νεμο essentially the same ending as in **NANO** of our legend. In both cases, the preservation of the full ending was probably due to its being protected by the following word (**PAO**, *mâh, resp.*), which formed, in fact, with the preceding genitive a compound of the class called *juxtaposé* by French grammarians. Most of the other MSS. read 'Απομεναμά, 'Απονμεναμά, and similar forms, in which the transposition of ν and μ is easily accounted for by palæographic reasons. Nor does the final **NO** of the ending [PA]**ONANO,** as compared with the *m* of the Zend ending *-anãm*, offer any special difficulty, as various indications of Zend phonetics lead us to believe that the final *m* had in reality been merged into the nasal sound *ã*, to which the *m* of our MSS. was added only for orthographic reasons.[41] This sound *ã*, the Indian *âṁ* or *aṁ*, is fitly represented by **ANO**.

After the fresh evidence we have given above for the representation of *sh* by **P,** we should still be unable to explain this remarkable fact if we could not supplement our philological arguments by an epigraphic observation. It refers to the fact (nowhere noticed in numismatical accounts, but easily ascertained from the coins themselves) that the character uniformly read **P** is actually found in two different forms on our coins. One is the ordinary Greek **P,** in its minuscule form, and may be seen *e.g.* in **MIIPO, ΦAPPO** (figs. ii. vii.); the other bear, a slight upward stroke, and, in this shape rather resembles an Anglo-Saxon **þ**. The latter form (which for brevity's sake we shall designate þ) seems constantly to be used for the *sh* of the obverses, but appears also sometimes in legends like **OPΛΑΓΝΟ** (fig. viii.) **ΑΘΡΟ** (fig. vi.), where its value as *r* can scarcely be doubted, and where, therefore, the occurrence of þ=*sh* could be explained only by the assumption of a partial confusion of two characters, so similar in their appearance.

A minute examination of a larger number

[39] Comp. Prof Darmesteter's *Études Iraniennes*, I. 124

[40] Comp. 'Απενμα = *âbân mâh* of Isaacus Monachus, and, as to μι = μα, the variant 'Απομεναμι in MS. VII. with Απομεναμά X.

[41] Comp. Bartholomae. *Handbuch der altiran. Dialecte*, § 79.

of coins will, perhaps, supply us with distinct evidence as to the origin of this remarkable character Þ=*sh*. I think I have found its prototype in the Greek **san** or **sampi**, ϡ. This ancient sibilant, which survived in the later Greek alphabet only as the ἐπίσημον for 900, was, in fact, the only Greek character available for the expression of the sound *sh* of the Indo-Scythian legends. *San*, which we know from Herodotus (i. 139) to have been a letter peculiar to the Dorians, denoted in their dialect apparently a softer pronunciation of *s*, perhaps approaching that of *sh*.[42] The very name *san*, evidently derived from the Semitic *shin*, suggests for ϡ a phonetic value similar to *sh* (compare the correspondence between name and sound in σίγμα = *samekh*). Our identification of the Indo-Scythian *sh* with the character *san* rests, however, in the main on clear palæographic evidence.[43] The earliest form of *san* is M, found in Dorian inscriptions (Thera, Melos, Corinth). Coins of Mesembria and an inscription of Halicarnassus present us with a later form of *san* in the shape of T. As a numeral it appears in Greek papyri of Ptolemaic times in the form of ϡ or T, from which the oldest minuscule form of *sampi*, ϸ, and the almost identical form of the Indo-Scythian *sh* can be derived with equal ease. The latter character may be seen with special clearness on the coins represented in figs. xv., xvi., xvii.

The Indo-Scythian coinage generally exhibits very cursive characters, which, in the absence of historical evidence (inscriptions of Kanishka and his successors date from A.D 87-176), we should be inclined to assign to a much later period. The almost perfect identity of the Indo-Scythian *sh* with the early minuscule form of *san* is, therefore, easily accounted for. In the Indo-Scythian legends we had always ample proof of the fact that Greek writing remained in current use in India long after the destruction of the Greek kingdoms, but the vitality of Greek writing in the far East was, perhaps, never brought more forcibly before us than by the observation that the obsolete *san* was revived to denote the *sh* of the foreign conquerors. In future we shall have to read the names of the Indo-Scythian "Kings of Kings" as **KANHÞKI** and **OOHÞKI** and their royal title: **ÞAONANO ÞAO KOÞANO**.[43a]

Both the forms **P** and Þ are distinctly represented in the legend hitherto read **APΔOXPO,** which accompanies a female type, holding cornucopiæ, frequent on the coins of Kanishka and Huvishka (figs. xv. and xvi.). And the first **P** appears always in the ordinary Greek shape, the second always like Þ. We must, therefore, all the more regret that the real name of this evidently very popular goddess has not yet been ascertained. Her identification with Ashis-vaṅuhi, the Avestic goddess of Wealth and Fortune,[44] is strongly recommended by the evidence of the type, which closely resembles that of the Greek Tyche; but we see as yet no way to reconcile her common name in later Zoroastrian tradition, Ashishvang or Ardishvang[45] (both forms derived from Avestic *ashis vaṅuhi*), with the form **APΔOXÞO.** Nor do the occasional variants of the coins,[46] all of them with Þ in the second place, afford any clue to this remarkable legend.

The same Þ is twice met with in the legend **AÞAEIXÞO,** which we read on a rare type of Huvishka[47] representing a male deity with radiating disk like **MIOPO.** The name, when read with due regard to the peculiar character of the two Þ, might well remind us of the second Zoroastrian archangel, the personification of the "holy order" and the genius of the sacrificial fire, whose Avestic name, **Asha-vahishta,** appears in the substantially identical forms *Ashavahishtô* and *Ardavahishtô* (*Ardibahisht*) in later Zoroastrian literature.[48] The latter form of the name is represented in the Cappadocian list by Ἀρταεστί—*i.e.** Ἀρτα[F]ε[hi]στί. We should, therefore, not hesitate to identify **AÞAEIXÞO**, *i.e.* **ashaeikhshô*, with *ashavahishtô* of the Pahlavi, if any satisfactory

[42] See Athenaeus, xi. § 30.

[43] Compare for the latter Dr I. Taylor's *Alphabet*, ii. page 97.

[43a] This and the preceding paragraph appeared as part of a letter to the *Academy*, Sept. 10, 1887.

[44] First suggested by Prof Hoffmann; his explanation of **APΔOXÞO,** however, is untenable, as the supposed original form of the name, *Ashis ahurôdhâ*, "Ashi daughter of Ahura," is nowhere met with in Zoroastrian literature.

[45] *Ashi*, originally **areti*, appears again as *Ard* in Pahlavi; comp. Pahl. *ard* for Zend *asha=areta*.

[46] See *Cat.* pp. 137, 138; **ΔOXÞO**—Huv. 19.

[47] See fig. xvii.; *Cat.*, p. 136.

[48] For Pahlavi *rd*=Zend *sh* see Note 45.

evidence could be found for the phonetic change of *sht* into *khsh*, apparently involved by this explanation.

In the ranks of Zoroastrian deities the goddess **NANA**, very frequent on the coins of all Turushka kings (see fig. xviii.), cannot fairly claim a place. Although her cult is found in various localities of Irân, as over a large part of Western Asia, there can be little doubt as to her non-Iranian origin. She was certainly never recognized by the Zoroastrian Church, and the few instances of her amalgamation with the Avestic Anâhitâ, in the West and in a syncretistic age,[49] are by no means sufficient to prove that her worship in Indo-Scythia was in any way connected with the Zoroastrian cult. It evidently preceded and outlasted the latter. Her name is found in the form of **NANAIA**[50] on the coins of an earlier king, who makes use of the type of Eucratides,[51] and it still occupies a prominent place on those of Vâsudêva, from which all true Zoroastrian types have already disappeared.

We cannot enter here into a discussion of those few types, which cannot as yet be assigned to any of the various mythologies represented on our coins. The most puzzling amongst them is perhaps the four-armed figure with the legend **MANAOBAΓO** (see fig. xix.), for which a satisfactory interpretation has still to be found. More Zoroastrian in appearance are the similarly obscure and rare types of Huvishka with the legends **ONIA**? (Nos 68-70), **OΔIIO** (94), **PIOM**? (109), and **ωPON** (138, 139).

A comparatively large number of fresh types has been found during recent years on very scarce sometimes even on unique specimens. We are, therefore, fully entitled to hope that further finds of Turushka coins, like that at Peshâwar, may yet reveal to us some new representations of Zoroastrian deities.

The testimony of the types and legends examined above is, however, in itself sufficient to establish the important fact that Iranian language and traditions, as well as Zoroastrian religion, were introduced into India by its Indo-Scythian conquerors. The eloquent and most authentic evidence of the Turushka coinage thus furnishes a safe starting-point for all future inquiries into that fascinating epoch in the history of the Aryan nations which witnessed the interchange of the Buddhist and the Magian influences between India and Irân.[52]

A NOTICE OF THE ZAFARNAMA-I-RANJIT SINGH OF KANHAYYA LAL.

BY E. REHATSEK.

(*Concluded from p. 88.*)

The third action was fought at **Aliwâl**, where the Sikhs first stood firm, but being afterwards completely routed and flying in the direction of the river, had the sword in their rear and water in front. They attempted to cross, but thousands found their grave in it, and all the [illegible] they had left on the bank were taken by the enemy. In the [illegible] battle, which took place at **Sabhrâwân** (Sobraon), the celebrated warrior and commander **Sh[illegible]m Singh** [illegible] bravely, but was slain, on which a panic overcame the Sikhs and they fled [illegible]. The Governor-General now ordered the army to cross the water and to encamp at Kasûr; and when this news reached Lâhôr, the **Mahârâjâ Gulâb Singh** was sent to meet the Governor-General, who received him with much kindness. A treaty of peace was concluded, to the effect that henceforth the territory situated between the Satlaj and the Biyâs was to belong to the English, to whom the Mahârajâ (Dalîp Singh) was also to pay one hundred *lak*'s in ready money, but, in case of his inability to do so, to cede also Kashmîr and the mountain districts adjoining it, retaining only the Panjâb on condition of [illegible]

Th[illegible] of peace having been concluded, [illegible] Governor-General marched to Lâhôr, and

---

[49] Collected by Prof. Hoffmann [illegible] on Nanai [illegible] *the [illegible] of the German Oriental Society*, Vol. VII. part 3, p. 130 sqq.

[50] As on the Greek coins of H[illegible]

[51] Comp. von Sallet, p. [illegible], p. 120.

[52] We may mention, as an independent confirmation [illegible] [illegible] July-August 1887, p. [illegible]

meeting the **Mahârâjâ Dalîp Singh** on the road, entered the town with him. In order to make the Khâlsâ troops harmless they were disbanded, and there being no money on hand to pay the stipulated hundred *lákhs* of rupees, **Kashmîr** was taken possession of by the British Government, but forthwith again bestowed upon **Gulâb Singh** with the title of **Mahârâjâ**. After this the Governor-General departed, leaving the troops in Lâhôr, to remain nine months for the maintenance of order: but when the said period of time had expired the Mahârâjâ Dalîp Singh was still apprehensive of disturbances, and made a request to the Governor-General to allow the troops to stay several years more, till he attained the age of majority and assumed the government. This was granted. At that time the **Râjâ Lâl Singh**, being prime-minister, presided in the *darbár*.

Gulâb Singh now departed to take charge of his newly-acquired possessions, but on his arrival the **Nawâb Shêkh Imâmu'ddin** would not give him admittance, whereon troops were sent against him from Lâhôr, and this, being a convincing argument, had the desired effect. The Nawâb immediately waited upon the noble Resident at Lâhôr, whom he informed that he had stood his ground in Kashmîr by order of the *darbár*, producing at the same time a letter to that effect, with the signature and seal of **Lâl Singh**. His duplicity having thus become evident, he was removed from his post, and thrown into prison by the Resident. Neither did the **Mahârânî Chandân**, mother of Dalîp Singh, fare any better, because she had manifested displeasure at the deposition of the prime-minister, and had meddled with the administration. She was accordingly separated from her son and removed to Shêkhupura, where she determined to avenge herself for the injury she had sustained, and succeeded in inducing a respectable inhabitant of that town, **Gangâ Râm** by name, to tamper with the *khânsamân* or chief butler of the English mess-house, who was bribed to poison all the officers through their food. The plot, however, having been revealed by a confidant of the messman before it could be executed, the Mahârânî was exiled to Benares, but her two accomplices, namely, Gangâ Râm and Kâ[illegible] Singh, suffered capital punishment.

At this time difficulties arose with **Mûlrâj**, the Governor of **Multân**, who delayed paying tribute to the English. Accordingly **Sir Frederick Currie**, the Resident at Lâhôr, despatched two English gentlemen, Vans Agnew and Anderson, with Kahn Singh to collect the tribute: but Mûlrâj, who was foolhardy enough to meditate war against the British Government, had them killed three days after their arrival. The troops of the Sikh [illegible] as well as of the British Government marched immediately, and besieged Multân. Among the first [illegible], however, the **Sardâr Shêr Singh Atârîwâlâ** proved a traitor, and intended with the forces under his command to join Mûlrâj, who was, however, either too wary or too proud to accept the proffered aid. Shêr Singh then hastened to Pêshâwar to meet his father, Chhatar Singh Atârîwâlâ, and the English, not [illegible] his defection, continued the siege of Multân, which was, however, not taken till reinforcements had arrived from Karachî.[58] The reason for the diversion Shêr Singh Atârîwâlâ had taken in his departure soon appeared, because he devastated the Hazârâ and the Pêshâwar districts, joining with his father in extorting money everywhere from the wealthy and distressing the poor. Great numbers of turbulent and disaffected vagabonds also swelled the army of the rebels to such a degree that they were enabled to make prisoners of several English officers and to besiege **Colonel George Lawrence**. A considerable force of Afghâns had also arrived from Kâbul to aid **Chhatar Singh**, who was near the Indus [illegible] joined [illegible]; and his forces having, in [illegible] time, [illegible] to double their numbers, [illegible] to occupy Atik and to present a [illegible] front to the English, but [illegible] The British [illegible] Chhatar Singh at Râmnagar, where [illegible] battle took place, in which [illegible] Sikhs lost their lives [illegible] was also killed. The second [illegible] at [illegible] and the third at [illegible] both of which the Sikhs were [illegible] the [illegible], which took place [illegible] abandoned to the English [illegible] artillery and threw away [illegible] in the fight. The [illegible] [illegible]

58 Multân fell in 1849 [illegible]

position to continue their depredations, and even their Afghân allies fled in dismay to their own country, whilst numbers of fugitive Sikhs, whose lives had been spared, left the Pañjâb and found a new home in British India. After the English had thus for the second time restored peace in the Pañjâb, the Governor-General, who found it nevertheless impossible to trust the Sikhs with an independent government, decided on dethroning Dalîp Singh, and accordingly deprived him in St. 1905 (A.D. 1848) of his kingdom and his wealth. Being young and friendless, the nobles of his court quickly severed all connection with **Dalîp Singh,** who was henceforth left alone. He remained a few years more in India, and was afterwards at his own request taken to England, where he is now established,[59] enjoying wealth and dignity by the favour of Her Majesty Queen Victoria, who is as kind to him as a mother.

THE VICISSITUDES OF THE BUDDHIST LITERATURE OF CEYLON.

BY THE REV. T. FOULKES.

The great influence which the **historical books of Ceylon** have had in the formation of the prevailing views of some portions of the ancient history of India, and especially of its chronology, makes it very desirable that as much as is possible should be known of the history of the literature to which they belong. The recent rapidly accumulating additions from other Buddhist literatures have taken the books of Ceylon out of the isolation in which they formerly stood, and help to throw light upon the legends of the Sinhalese; and they themselves contain an incidental record of the many vicissitudes to which this particular literature was exposed in the midst of the political and religious changes which mark the history of the island. The object of this paper is to bring together that scattered information, and to gather from it whatever it may teach us the history of this interesting literature.

The authorities here referred to are the **Dîpavaṁsa,** the **Mahâvaṁsa,** the **Râjaratnâkari,** the **Râjâvali,** and some other works which are occasionally quoted below, but need not be separately named here. Of these the *Râjaratnâkari* and the *Râjâvali* are written in the Sinhalese language, and are of comparatively recent date.[1] The *Dîpavaṁsa* and the *Mahâvaṁsa* are in the Pâli language, and have both been supposed to belong to the 5th century, A.D.[2] But while there is good evidence in support of the claim of the *Dîpavaṁsa*, in its original form, to that early date, there are strong reasons for regarding the *Mahâvaṁsa* as a work of a considerably later period. Turnour erroneously regarded these two books as identical, and was unable to throw off the idea, although he subsequently had the *Dîpavaṁsa* in his hands, and made an analysis of its contents.[3] The text and an English translation of the *Dîpavaṁsa* were published in 1879 by Professor Oldenberg; and a retranslation of a portion of it by Mr. Donald Ferguson appeared in this journal, *ante*, Vol. XIII. p. 33ff. Oldenberg[4] has shown that the *Dîpavaṁsa* quoted by Buddhaghôsha in the 5th century, A.D., differed in some details from the existing work of that name; still there is sufficient probability on the side of the supposition that the existing recension is at least a close recast of the original work. We have the *Mahâvaṁsa* in two different recensions: one of them is an English translation edited by Upham in 1833, and made for Sir Alexander Johnston, a former Chief Justice of Ceylon, and the other, published in 1837, by the Hon. George Turnour, of the Ceylon Civil Service. Turnour's translation has the great advantage of being accompanied by the Pâli text: but it extends only as far as the 38th chapter, bringing the history down no later than A.D. 477; while the Upham recension contains eighty-eight out of the hundred chapters of which the work consists, and brings the history down to A.D. 1319. The unpublished chapters[5] continue the history down to the latter half of the 18th century.

The traditions to be considered in this

[59] i.e. when this book was written.

[1] Upham's *Sacred and Historical Books of Ceylon*, Introd. pp. viii. xvi.; Turnour's *Mahâwanso*, Introd. [illegible] Hardy's *Manual of Buddhism*, 519.

[2] Turnour *op. cit.* Introd. p. liv., and notes on pp [illegible] and 257.

[3] See *Journal* of the Bengal Asiatic Society for 1838, Vol VII. 919 ff.

[4] Introd. p. 9.

[5] Turnour's *Synopsis*, Introd. p. xcii.

paper may be conveniently grouped under the following **five periods** :—

I. From the death of Buddha to the 1st century B.C., forming the so-called unwritten period.

II. From the 1st century B.C. to the 5th century A.D., forming the first written period of these legends.

III. From the 5th century A.D. to the subversion of Buddhism in Ceylon in the 11th century A.D.

IV. From the Buddhist revival in the 11th century A.D. to the second subversion of Buddhism in the 13th century.

V. From the second Buddhist revival in the 13th century A.D. to the present time.

Period I.

From the death of Buddha to the 1st century B.C.—This period is covered by the following legend of the *Dîpavaṁsa* belonging to the time of king **Abhaya Vaṭṭagâmaṇi,** whose reign Turnour places in 104 to 76 B.C.[6] "Before this time the wise Bhikkhus had orally handed down the text of the three *Piṭakas* and also the *Aṭṭhakathâ.* At this time the Bhikkhus, who perceived the decay of created beings, assembled ; and in order that the religion might endure for a long time they recorded (the above-mentioned texts) in written books." The text of the Turnour recension of the *Mahâvaṁsa*[7] is, with the exception of one unimportant word, precisely the same here as the *Dîpavaṁsa ;* but Turnour's translation has introduced a new element into its meaning ;—"The profoundly wise (inspired) priests had theretofore orally perpetuated the Pâli *Piṭakattaya* and its *aṭṭhakathâ* (commentaries). At this period," &c. His text says nothing whatever of the language of these scriptures ; but, as is evident from his use of the capital letter *P* in his text in the word *Pâlincha,* he has taken the temporal adverb *pâlim,* "before this time" of Oldenberg's version, which is opposed to the similar adverb *hânim,* "at this time," of the succeeding sentence, to mean "the Pâli" language. As this is the first appearance of the Pâli language in the record, it deserves to be noted that it is brought in here quite by mistake.[8] The Upham recension of the *Mahâvaṁsa* and the *Râjaratnâkari*[9] repeat the tradition with the addition of a few amplifying words ; unless the words "for want of the Pâli books which contained them" in the former of these two authorities mean that these books had formerly existed and had been lost. By the 13th century this legend had acquired a still more distinct form. "The Buddha's doctrines, being written in the Pâli language, which aforetime had been borne by heart by those great learned priests, had been committed to books at the time of the king Walagam-abha."[10] And out of this has ultimately grown the still later tradition,[11] that this king Vaṭṭagâmaṇi was the inventor of the art of writing.

The tradition of the exclusively oral transmission of the whole of the Buddhist canon during the first five centuries after the death of Buddha belongs to the legends of the Southern Buddhists alone, which have their ultimate source in Ceylon : and assuming the *Dîpavaṁsa,* quoted by Buddhaghôsha, to be substantially the same as Oldenberg's, this tradition was prevalent in the 5th century of the Christian era. Now these scriptures are about twice the size of our Bible,[12] and contain 1,237,000 verses of thirty-two syllables each,[13] occupying 78,871 lines of *talipot* leaf manuscript from 1 ft. 7 in. to 3 feet in length.[14] The enormous memory which the retention of this immense quantity of matter involves presents no difficulty to the Buddhists themselves, who attribute it to the supernatural powers possessed by their teachers during their age of miracles.[15] Amongst European critics, Hardy[16] declined to credit the statement, and, together with Prof. Max Müller,[17] proposed to distribute the contents of the books among many memories. Turnour himself declared that it was "founded on superstitious imposture.[18] Professors Rhys Davids[19] and Oldenberg[20] accept the tradition.

[6] Oldenberg, 211 ; Turnour, *Mahâwanso,* Introd. p. lxi.
[7] Turnour, 207
[8] As Upham's version (i. 219) has the same forced construction of the word *pâlim* it is probably to be attributed to a native commentary.
[9] Upham, I. 219 ; II. 43 The *Râjavali* does not mention it.
[10] Upham, I 322.
[11] Upham, III. 161.
[12] Prof. Rhys Davids in *Encycl. Brit.* IV. 438.
[13] Upham, III. 30.
[14] *Journ. As. Soc. Beng.,* VI. 509, 527 Turnour, Introd. (Appendix III.), p. lxxv.. Hardy's *East Monach.* 167.
[15] *Journ. As. Soc. Beng.* VI. 506. Turnour, Introd. p. xxviii , xxix.
[16] *Eastern Monachism,* 185, 186, 187.
[17] *Sacred Books of the East,* X Introd. p. xxv.
[18] Turnour, Introd. p. lvii
[19] *Sacred Books of the East,* XIII. [20] Introd. p. xxxv.

On the other hand, the traditions of the Northern Buddhists, including their Chinese offshoot, regard their canonical scriptures as a written literature preserved in books from Buddha's own days downwards. Buddha himself was a highly educated man according to the manner of the princes of his times.[21] Instances are given of his epistolary correspondence.[22] He was, moreover, an accomplished Sanskrit scholar,[23] and learned in the philosophies of the Brâhmans. Although his teaching consisted largely of popular oral discourses, it by no means follows that he did not commit anything to writing; and there is actually one record, albeit a solitary one, of a manuscript being found at his death which had been written with his own hand.[24] We cannot ignore the statements which speak of written books in the time of Aśoka in the 3rd century B.C. and even earlier, nor set aside the long stream of indirect evidence which all along assumes and sometimes declares the existence of written books from the beginning. The legends of the Sinhalese themselves are not without some substantial evidence of a more direct kind to the existence of this early written literature,[25] though it is subversive of the general drift of their other traditions: for it is stated in one of their principal historical works that religious books formed a portion of the complimentary presents which Aśoka sent to the king of Ceylon;[26] and the names of some of these books, or of some others which Mahinda, the converter of Ceylon, then brought with him, and the use which he made of them in the course of his teaching, are distinctly mentioned.[27] The same authority[28] also refers to the existence of a portion of the *Sûtra-piṭaka* in Ceylon in a written form in the middle of the 2nd century B.C. It tells us that on a certain occasion king Duṭṭhagâmaṇi assumed the preaching chair and "began to read the book *Maṅgala-sûtra*," with a large assembly of monks for his audience; and it also tells us that this prince possessed other manuscripts besides those of the Buddhist canon; for he "saw once amongst the writings of his ancestors a prediction delivered to his grandfather, king Dêvenipiyatissa by the priest Mihidu-mahâterunvahanse." Again the *Dîpavaṁsa*[29] has a list of eminent Buddhist nuns on the continent of India, who were well versed in the *Vinaya* and other scriptures, from the foster-mother of Buddha downwards, and another similar list, headed by Saṅghamittâ, king Aśôka's daughter, who came from India to Ceylon, and taught the whole of the Buddhist canon in Anurâdhapura, from the 3rd century of the Buddhist era down to the days of king Abhaya in the dawn of the Christian era. It would be extremely difficult to understand this tradition on any other supposition than that the *Piṭakas* existed during the whole of this time in a written form, and that these written books were in the hands of these learned female teachers.

In the presence of this amount of direct and indirect evidence, which has, moreover, all natural probability on its side, we may be justified in regarding the improbable legend of the exclusively oral transmission of the *Tripiṭaka* as a fable put into a form which was calculated to satisfy the faith of the friendly and to silence the taunts of the unbelieving, invented to account for the earliest known traces of written books in Ceylon in the first century B.C. We may further regard the books originally brought to Ceylon as having been lost or destroyed at some time between the death of Mahinda and this date, through the carelessness of the local monks, or the hostility of the foreign rulers of the island, or both combined; for the legend itself admits the increasing ignorance and incapacity of the monks, and the history records the local trials of Buddhism during this interval. The *Dîpavaṁsa*, in which we first meet with the fable, was not written even in its earliest form until about five centuries after the times of which the legend speaks; and its plausibility would

[21] Hardy's *Manual of Buddhism*, 147; Rajendralála Mitra's *Lalitavistara*, 205, 213; Beal's *Romantic History of Buddha*, 68, 85ff; Rockhill's *Life of the Buddha*, 19.

[22] [illegible] *[illegible] Grammar*, 1[illegible]4; Rockhill, 59.

[23] Hardy, *Man. Bud.*, 164ff; Max Muller's *Hist. of Anc. Sanskrit Literature*, 261; Weber's *History of Indian Literature*, 291; Bigandet's *Life of Gaudama*, [illegible]; *Rom. Hist. Bud.*, 155ff; Rockhill, 27ff; Mutu Coomara Swamy's *Dâthavaṁsa*, 25; Fytche's *Burma*, [illegible] 272.

[24] Kaempfer's *History of Japan*, I. 245.

[25] See, e.g., *Journal As. Soc. Beng.* VII. 282, 922; Upham I. 43, 37, 38; Ward's *Hindoos* (3rd edition), II. 211; Bigandet 120, note, 350 note, 360 note; *Sacred Books of the East*, X. Introd. p. xii.

[26] Ward's *Hindoos*, l. c. sup.

[27] Upham's *Mahâvaṁsa*, I. 83; Lindlay's *Fa Hian*, 37, 42.

[28] Upham, I. 90, 92, 94.

[29] *ibid.* p. 200.

receive additional support from the well-known circumstance that in all ages both the students of the *Vêdas* and the disciples of Buddhism alike received their only legitimate teaching from the living voice of a master, even when written books were abundantly accessible.

The legends regarding the translations of the commentaries on the *Tripitaka* in the Sinhalese language, and more particularly the additional **Atthakathâ of Mahinda** himself, belong to this period of the history of this literature. This tradition appears in the notice of Buddhaghôsha in the Turnour recension of the *Mahâvaṁsa*:[30]—"The Sinhalese *Atthakathâ* are genuine. They were composed in the Sinhalese language by the inspired and profoundly wise Mahindo." But the other authorities do not mention it at all. The more modern tradition is thus stated by Turnour:[31]—"The *Pitakattaya*, as well as the *Atthakathâ* propounded up to the period of the third convocation in India, were brought to Ceylon by Mahindo, who promulgated them orally here—the *Pitakattaya* in Pâli, and the *Atthakathâ* in Sinhalese, together with additional *Atthakathâ* of his own. His inspired disciples and his successors continued to propound them also orally, till the age of inspiration passed away, which took place in this island (as already stated) in the reign of **Vattagâmini**, between B.C. 104 and B.C. 76. They were then embodied into books, the text in the Pâli and the commentaries in the Sinhalese language. The event is thus recorded in the thirty-third chapter of the *Mahawanso*, p. 207:—'The profoundly wise,' &c. In the reign of the **Râja Mahânâmo**, between A.D. 410 and 432, Buddhaghôsha transposed the Sinhalese *Atthakathâ* also into Pali. The circumstance is narrated in detail in the 37th chapter of the *Mahâwanso*, p. 250. This Pâli version of the *Pitakattaya* and the *Atthakathâ* is that which is now extant in Ceylon, and it is identically the same with the Siamese and Burmese versions." The tradition is thus made to rest upon two passages in the Turnour recension of the *Mahâvaṁsa*. The former of these passages, however, neither mentions Mahinda nor his Sinhalese commentaries: on the contrary, it distinctly states that both the text and the commentary of the *Pitaka*, which were then committed to writing, were in the Pali language.[32] The whole legend, indeed, seems clearly to belong to much more modern times, when Sinhalese books had ceased to be a novelty. It reads by the side of the other legends rather as an elaborated invention than an original tradition; and with our present knowlege of the earliest literature of Buddhism, the question of the existence of these Sinhalese commentaries of Mahinda cannot claim any serious consideration.

Period II.

From the 1st century B.C. to the 5th century A.D.—This period opens with the restoration of the legitimate king **Vattagâmani, Valakan-abha**, or **Valagambâ**, in B.C. 88,[33] after a period of usurpation by the Tamils of Southern India,[34] following a time of civil and religious commotion.[35] The loss of the earlier literature may safely be attributed to these disturbances: and the rise of the new literature, which now replaced it, was one of the results of the royal patronage of the seceding monks of this king's new **Monastery of Abhayagiri**.[36] The origin of this new literature is thus stated in the *Dîpavaṁsa*:[37]—"At this time the Bhikkhus, who perceived the decay of created things, assembled; and in order that the religion might endure for a long time, they recorded the three *Pitakas* and their commentaries (*Atthakathâ*) in written books." The text of the corresponding passage of Turnour's *Mahâvaṁsa*,[38] as stated above, is precisely the same, with the exception of an unimportant particle, as the text of Oldenberg's *Dîpavaṁsa*: as also apparently were the equivalent texts of Upham's *Mahâvaṁsa*[39] and the *Râjaratnâkari*[40] before the glosses were worked into them.[41] The language in which these books are assumed to have been written in those glosses is

[30] *Journal As. Soc. Ben.* VII. 932, 933; Oldenberg, 204ff.

[31] Turnour 251.

[32] Introd. p. xxix.

[33] See also Upham, I. 322.

[34] The *Râjavali* (Uph. II. 224 with 226) puts his date considerably later.

[35] Oldenberg's *Dîp.* 207, 211; Upham, I. 218; II. 43, 224; Turnour, 207, and Introd. p. lxi. All the dates in this paper, unless specially mentioned, are taken, for the sake of uniformity, from Turnour's Introduction, Appendix, p. lxii.

[36] Hiuen Tsiang, (Beal II. 247) tells us that the monks of the Abhayagiri studied both vehicles, and widely diffused the *Tripitaka*.

[37] Oldenberg, 211.

[38] Turnour, 207.

[39] Uph. I. 219 with 322.

[40] Uph. II. 43.

[41] See also Upham, III. 115.

Pâli; but this, as already pointed out,[12] is due to a palpable error. It is, moreover, at variance with the subsequent traditions that the Ceylonese *atthakathâ* were written in the Sinhalese language, into which Mahinda had translated them. The language of the books of this **Abhayagiri revival** cannot be determined at present: though the drift of the present evidence points rather strongly towards Sanskrit, and the sources from which the new recension of the *Pitakas* and their commentaries was made must also remain over for future investigation.

The *Râjâvali* has no reference whatever to this remarkable event of Vattagâmani's reign: although it relates the principal circumstances of his reign much like the other authorities. But, if the legend is a corrupted survival of the same tradition, it transfers the transaction to the reign of Vattagâmani's successor, and converts it into the more commonplace formation of a central library, into which he gathered a good many Buddhist religious books, which were heretofore scattered abroad. "The next king was **Maha Dileyaw Tissa Rajah.**

caused the books concerning the religion of Buddha to be collected and deposited in one place."[13] The *Dîpavaṁsa* and the *Mahâvaṁsa* do not mention this library, and the *Râjaratnâkari* omits this king's reign.

It is quite possible that some of these books were recovered from the monasteries of the southern and eastern districts of the island, into which the power of the invaders did not penetrate at this time, and that others were obtained from Southern India. However this may be, we are here clearly in contact with the earliest written books of Ceylon, of which the local memory had any cognizance at the time when these legends were written in their present form.

To this period belongs the thrice-repeated destruction of the books of the **heretical Vaitulyas,** the first occasion being in the beginning of the third century A.D.[14] They made head again during the succeeding half century, and their books were again committed to the flames.[15] From the way they are spoken of, these books seem to have been numerous: but there is no clue to the language in which they were written.

The *Râjaratnâkari*[16] states that king **Mahâsêna,** A.D. 275 to 302, caused a complete copy of Buddha's sermons to be written, which occupied 30,000 volumes; and that he deposited these books in a chest or bookcase made purposely to contain them. He also brought a learned monk from a foreign country to Ceylon, with a retinue of thirty-five com-

ing the monks of his own monasteries in the *Vinaya* and the Pali language. None of the other authorities mention this legend. This circumstance takes something out of the weight of the record: and it may possibly be only an anticipation of the legend of Buddhaghôsha, placed by mistake in the reign of Mahâsêna, instead of in that of **Mahânâma.**

(*To be continued.*)

to the hunter who was there. The old woman gladly consented, and in due time the wedding of the hunter with the old woman's youngest daughter took place.

After living there for several months Râjâchâ Masthiâ said he must take leave of them to visit other countries. The old woman and others were loth to part with him, and more so the hunter. Nothing, however, could persuade Râjâchâ Masthiâ to change his mind. Thereupon the hunter said: "My dear *pardhân* and friend, if you must go, leaving me here, I agree only to please you. However, you must give me also some sort of sign, like the one you gave to our friend the carpenter, by which I can know if anything befall you and come to your aid if necessary." Râjâchâ Masthiâ gave him also a plant, and told him to water and take care of it. He said: "If this plant withers know that I am ill, and if it dies know that I am also dead." Thus saying he bid a loving farewell to the hunter and his bride and everyone else that had formed his acquaintance, to their great regret.

Thus the carpenter and the hunter were settled, and Râjâchâ Masthiâ now set out alone, his sword his only companion. He travelled for many days and then he came to another desolate city. There in the centre of the city he saw a huge *kalai* filled with oil boiling over a great oven. Râjâchâ Masthiâ thought: "I must wait and see what this means." He hid himself in a bush close by. He was not long there before he saw a tremendous big *rânkhas*, seven palmyras in height, come with a large *kâvâr*[1] on his shoulders, filled with men. When he neared the *kalai* of oil he threw all the men into it, and when they were all fried he ate them all one after another. When he had swallowed the last Râjâchâ Masthiâ came out of his hiding place and presented himself before the *rânkhas*. As soon as he saw him the *rânkhas* said: "Oh what a mouthful you would make. I only wish I had seen you before. However, though I have had enough, I must yet make a meal of you." On this Râjâchâ Masthiâ waxed wrathful, and with one stroke he stretched him on the ground where the *rânkhas* lay like a great mountain. On close examination Râjâchâ Masthiâ found on this *rânkhas'* waist a huge diamond. In this city, too, there was a large tank, and suspecting that in this tank also might be a palace, Râjâchâ Masthiâ held the diamond to the water, and, lo! a passage opened. He saw a ladder, and by it he descended and found a very beautiful palace, and in it was a maiden of such beauty as never before met human eyes. Râjâchâ Masthiâ very soon formed an acquaintance with her, and they were so much taken up with each other's beauty that they resolved upon being married. The same day he left the subterraneous palace and put up on a high post a large flag with the words: "All the inhabitants of this city that have fled on account of the *rânkhas* can now come and live in their own houses unmolested. Râjâchâ Masthiâ has killed your dreaded enemy, the monstrous *rânkhas*." Now it must be known that the fame of Râjâchâ Masthiâ's prowess had reached this city long before he had left his father's house, though the citizens had never seen him before. As soon then as they saw the flag with Râjâchâ Masthiâ's name and the news that he had killed the *rânkhas* they all leaped for joy, and once more settled in their own country and houses. The city now looked beautiful and lively.

Some time after this Râjâchâ Masthiâ gave out publicly his intention of marrying the fair lady in the subterraneous palace, and the whole of the citizens said that it was the most proper thing for him to do, for they knew that his marriage would make him a permanent resident, and they would not to have to fear any more *rânkhases*, if there should be any. Grand preparations were going on for over a month, and then the wedding of Râjâchâ Masthiâ with the beauty of the subterraneous palace took place with all possible grandeur. All the inhabitants of the city were invited to the feast, and the rejoicings lasted for several days.

The newly married couple were next asked by the citizens to be their king and queen, which honour Râjâchâ Masthiâ and his bride gladly accepted.

They lived happily for some years, but, unfortunately for Râjâchâ Masthiâ, he was so taken up with his wife and the government of his kingdom that he forgot all about his

[1] Two baskets suspended at the end of a pole, and carried on the shoulders.

sword. It began to rust and Râjâchâ Masthiâ began to feel ill, and was daily losing his strength. The trees also he had given to his friends, the carpenter and the hunter, began to fade. All the care bestowed by them had no effect, and they made certain that something was wrong with Râjâchâ Masthiâ.

The carpenter at once set out in search of his friend, with the object of giving him some help if possible. After travelling several days he came to the city where the hunter had married and settled. He saw him also preparing to go on the same errand as himself and so they set out together. On the way the hunter told the carpenter how he had come to settle in that country, and thus they walked and walked for many days, and at last reached the city in which Râjâchâ Masthiâ was. But the difficulty was how to find him. So they both disguised themselves, the hunter as a *chanâ-kurmurîwâlâ*,[2] and the carpenter as a *bâṅgrîwâlâ*.[3] In this disguise they went from house to house, and tried to gain some clue as to the whereabouts of Râjâchâ Masthiâ. At last, after great trouble and much delay, the carpenter (as *bâṅgrîwâlâ*) got the necessary information from an old woman. Accordingly the carpenter and the hunter put aside their disguises, and, with the aid of the diamond possessed by the carpenter, they soon made their way into the palace of Râjâcha Masthiâ.

They reached there just in time to be of use to him. He had become very weak and in a day or two he would have been no more.

Their first care on entering the subterraneous palace was to inquire of Râjâchâ Masthiâ as to what they could do to alleviate his sickness. He remembered his sword and told them to clean and sharpen it. They lost no time, but at once set about it, and as the rust began to disappear Râjâchâ Masthiâ gained strength, and as soon as the sword was sharp and bright Râjâchâ Masthiâ stood up and walked about with his usual vigour, as if nothing was the matter with him.

The carpenter and the hunter after some months expressed a desire to Râjâchâ Masthia to live with him. Râjachâ Masthiâ, too, could not bear the idea of parting with them again, so he told them to go to their respective countries and come back with their wives. They therefore went, and, taking their wives, bid a parting adieu to their many friends and acquaintances who regretted them very much.

When they reached Râjâchâ Masthiâ's country again they were appointed his highest officers in the State. And Râjâchâ Masthiâ, the hunter and the carpenter and their wives, lived together very happily for many many years like brothers and sisters, and were loved and respected by all the citizens, and when they were no more they were long remembered by them as their deliverers and benefactors.

RAJACHA MASTHIA.

Êk hôthâ râzâ zô râz karith aśê êkê môthê râzasthanâvar. Thiâchê mêrê hôthia murâd paltani, âni sâraṁ jêṁ kâ kônâchan êuzavêl: pûn êkê vârthê karthaṁ thô hôthâ murâd khanthî kaṁ thô hôthâ nipûthri, âni thiâchê mêliapâtti kôni nôthaṁ thiâchaṁ râz châlvâlâ. Iâ karthaṁ râjâzûn murâd dharam kêlâ, guê aśiân thari, garib dûblê razâr karthin âni Parmêśôr aulâdh dêl. Thavaṁ murâd têpâśiṁ môthê mhâthârpanân, râui rêli pûrmâśiṁ, âni têp pûrliavar êk sôkrâ zhailâ. Thô sôkrâ bêgin bêgin vârlâ, âni râzâ âni sâri thiâchi raith khuśâlin bharliṁ.

Athaṁ dhônak varsaṁ jêliâvar êk sôkri zalmali, âni thiâ vakthâśiṁ sâriṁ mânsaṁ thilâ lêkhûṁ lâgliṁ âni sôkriâchi kôn dâdh kari naśê, aurêthûk guê kôn thiâlâ bagith pûn naśat. Athaṁ sôkrâ lâhân hôthâ kharâ pûn thiâchê manân dûbâu jêlâ, âni iâ karthaṁ thiâlâ ailâ kantâlâ. Barâ zânthâ zhailiâvar, môthê sakâlchâ úthê, ghôriâvar baśê âni zai rânân zanglân, âni thaiâṁ gauiliañchê mêrê dûdh mâṅgthaśê âni pithaśê. Pailâ thô śêrbô dûdh pithaśe, maghśiṁ dhôn śêr, âni aissaṁ karthaṁ karthaṁ ailâ manâvar. Auraṁ dûdh piûn piûn thô zhaila mazbûth, aurêthûk guê gharâ zâthaṁ jêṁ thiâchê vâttên ailaṁ thauraṁ thôr môr karûn chûrâ. Zhâraṁ bôlâ, gharaṁ bôlâ, phôr thôr karûn bhûsâ. Iâ karthaṁ thiâchaṁ lôkhâzûn nauṁ thêvilaṁ Râjâchâ Masthiâ. Gharâ ailiâ barâbôr thiâchê kâmbrian zâunśiṁ kônâlâ cund i naśê. Châkar cunśiṁ thialâ saṅgath guê khawâchaṁ thaiâr hai, pûn thô âsrâ jhei naśê kônâchâ âni thiânâ sâṅgê thiânchaṁ kâm samâlâvâ. Athaṁ râjâchê sôkrizûn murâd vakath

[2] Gram and parched rice hawker.

[3] Bangle hawker.

bagiltham Râjâchâ Masthiâlâ gharâ êtham gaunlianparśim, pûn thilâ khabar nôthi guê thô thichâ bhâu aissâ. Thizûn thari bagiltham kaissâ gharam ou dhâram ou zhâram, kam kônsam bî thiâchê vâttên âilam thê thô phôr thôr karûn chûrâ karthaśê.

Kain thêp jêlam âni râjâchi sôkri zhaili varâdâvâchi, thavam râzâ, thichâ bâpûs, âilâ thichê mêrê sângathlam thilâ kônâcham thari nâun sângâvâ, jâśim thi khuśi hôil varâdâvâlâ. Atham thilâ khabar nôthi guê Râjâchâ Masthiâ thichâ bhâu karûnśim thavam thi bôthli âplês bâpâslâ :

" Mim varâdên aśiâśim zhô kâ bârâ âni bârâ chauvis manâchâ lôgdâchâ gôlâ thûkil âni bârâ âni bârâ chauvis kôs ûrvil thaśiâśim.

Râzâ kabûl zhailâ, âni chitiâ pâtviliâ bijê gânvânchê râjânâ âni pardhânânâ aiśiâ guê kôni bârâ âni bârâ chauvis manâchâ lôgdâchâ gôlâ thûkil âni bârâ âni bârâ chauvis kôs ûrvil thar thiâlâ thiâchi sôkri dêl.

Atham thiâ dhissâlâ êk lôgdâchâ gôlâ bârâ âni bârâ chauvis manâchê ôzanâchâ thaiâr kêlâ âni maidânâmani thêvilâ. Thiâ dhissâ murâd râjê âni pardhân bênchê gânvânchê ailê bagâvâ zar thiânchân thô lôgdâchâ gôlâ bârâ âni bârâ chauvis manâchê ôzanâchâ thûkûnśim bârâ âni bârâ chauvis kôs ûrvavêl thê âni aissam karûnśim râjâchi sôkriśim varâdvêl thê.

Sârê râjê âni pardhân zaurê ailthê thauriâńzûn thajviz kêli thô lôgdâchâ gôlâ bârâ âni bârâ chauvis manâchâ thûkûnśim bârâ âni bârâ chauvis kôs ûrvalâ, pûn sârê dhamlê. Kôn kônśânzûn thûkilâ pûn kônâchân ûrvavalâ nâhin. Thavam thiâs vakthân Râjâchâ Masthiâ dûdh piûnśim ailâ, ani thô gôlâ thiâchi vâttên millâ ; thavam thiâzûn thûkûnśim ûrvilâ bârâ âni bârâ chauvis kôs ûpar.

Râjâchâ Masthiâlâ khabar nôthi thô gôlâ kalâ hâllathâ thê âni bênchê râjê âni pardhân kalâ ailthê thê, âni thiâzûn thari kônâchi dâdh firiâdh nâhin thêvili pûn thô gôlâ ûrvilâ âni châlthâ zhailâ. Sârê lôkh ajebân bharlê guê kâ sakthi asêl.

Râjachâ sôkri êkê jênêlânśim bagithôthi. âni zaissam kâ dêkhilam guê Râjâchâ Masthiazûn thô lôgdâchâ gôlâ bârâ âni bârâ chauvis manâchâ thûkûnśim bârâ âni bârâ chauvis kôs ûrvilâ, thi dhanvath aili Râjâchê mêrê âni sângathlam guê Râjâchâ Masthiâśim varâdên. Sârê Râjê âni pardhan hairân zhailê êm aikûnśim âni vichâr karûm laglê guê aiśi vârthâ kaśi vichêl guê bainicham varâd hôthêi bhâvâśim. Thichâ bâpûs âni sârê bijê râjê âni pardhân thilâ bôlum lâglê pûn thizûn kônâchi vârthâ kânâvô jêthli nâhin ; thi bôthli : " Mim varâdên thê thiâśins varâdên. zari kâ mânzâ bhâu aslâ." Zavam bagithân guê thi nâhins aikê thavam thê bênchê râjê âni pardhân bôthlê guê " kain fikir nâhin, êm varâd nâhin karâl thê sôkri dhâsthi jêl âni marûn zail." Aissâ vichâr karûnśim thiânzûm êk dhis tharâvilâ varâdâlâ. Murâd thaiâri challi dhôn thin mainê thavam êm varâd hauśêśim karâvâ.

Râjâchâ Masthiâzûn zaissam êm aikathlam thaissâ vêrâ zhailâ, âni bilkul kabûl nâhin zhailâ. Atham varâdâchê thaurê dhis puram thiâchi tharwâr jhêthli âni pâzvûm lâglâ. Thô tharwâr pâzvithâ astham râjâchâ êk châkar thavârśim passâr zhailâ âni thiâlâ bôthlâ : " Kâm, Pardhân Sâhib, sârê lôkh gûthliâu, varâdâchi thaiâri kartham, âni thûmi aurê sûsêgâdh rêliâ !"

Thavam Râjâchâ Masthiâzûn vichârilam : " Kônâchê varâdâla thaiâri karthân ?"

Thiâ châkrâzûn zavâb kêlâ : " Kâm, kôn pâthil guê tûmâlâ khabar nâhin zavam kâ tûmcham pôthainchani varâd hai âplês baiśim."

Thavam Râjâchâ Masthiâlâ râg ailâ âni hiâzûn sângathlam châkrâlâ thiâchê nadhrêvarśim ningâvâ, " nâhin thê" bôthlâ, " pinzûn tâkhin."

Thô châkar ghârbarlâ âni châlthâ zhailâ kâm thê thiâlâ khabar hôthi Râjâchâ Masthiâchê sakthichi âni râgâchi. Thô chakar jêliâvar thaurê vakthâśim biza êk châkar passâr zhailâ âni Râjâchâ Masthiâlâ tharwâr pâzvitham bagûnśim thô bôthlâ : " Kâm, kâ karthâ, Pardhân Sahib, tharwâr pâzvûnśim, zavam kâ sârê bijê lôkh thaiâri karthân varâdalâ ?"

" Kônâchê varâdâlâ thaiâri karthân ?" vichârilam Râjâchâ Masthiân.

Châkrâzûn zavâb kêlâ : " Kon pâthil guê tûmcham varâd asûn aplês baiśim tûmâlâ khabar nâhin aiśi ?"

Râjâchâ Masthiâzûn iâ châkrâlâ thari sângathlam êk dam thiachê nadhrêvarśim zâvâlâ, " nahin thê" bôthlâ, " pinzûn takhin."

Thavam tharwar pâzvithâ astham thisrâ châkar passar zhaila âni Rajachâ Masthiâlâ dekhûnśim bôthla : Kâm, Pardhân Sahib, sârê lôkhâchi dhâm dhûm challei thaiâri karâvâ varadâlâ, ani tûmm khûśal rêliâ. Kaiâm zâthâ tharwâr pazvûnśim ?" Thavam Râjachâ Masthiâzûn

khabar kêlaṁ guê kônâchê varàdàlâ thaiàri challei. Thià châkràn sângathlaṁ guê varàd hai thiàchaṁ âplês bainiśiṁ. Thavaṁ nâktê tharwâriśiṁ thiâ châkrâchê angâvô jêlà âni bôthlâ: "Niṅg màngê nadhrêvarśiṁ êk dam, nàhin thè dharin âni piṅzûn tâkhin." Bijè chàkraṅchê gathi ôh châkar thari bilâ âni chàlthà zhailâ.

Athaṁ Ràjàchâ Masthiâchi tharwâr aiśi hôthi guê thi zar kîtaili thè thô àzàri parêl, âni thi tharwâr zar môrli thar Ràjàchà Masthiàchâ jiu zail. Thiâchâ jiu hôthâ thiâ tharwârin, thiâthò thiâchàn thi tharwâr tàkvath nôthi. Thavaṁ tharwâr jèthli, ghôriàvar baislâ âni jèlâ ghar dhâr sôrûnśiṁ vin sàngithlia aislà ou bâpâslâ ou bijê kônàlâ. Sàriàṅzûn bagilaṁ thô jêlà thê pûn thiânchè manân guê dhardhis zâthê èthê thaissâ âz thari zail ail. Kônâchê manân dhubâu nothâ guê athaṁ thô bilkul êvâchâ nâhin.

Thavaṁ zâthaṁ zâthaṁ muràd lâmb pôṅchlâ êkê rânân zanglân thavaṁ èk pârdhi kallâ: thiàchê khândhàvar hôthi êk bûndùk. Râjàchâ Masthiân hàṅk mârli thiâlâ âni vichârilaṁ: "Arè, pârdhiâ, tûjè bûndkèchaṁ vazan kauraṁ hôil?"

Pârdhîâzûn zavâb kêlâ: "Pandhrâ man."

Thavaṁ Ràjâchâ Masthiâ bôthlâ: "Zar râth âni dhis tûṁ pandhrâ manâṁchaṁ vazan tûjè khândhâvar nèthès thar tûṁ môthâ pèlvan hais."

Thavaṁ pârdhi bôthlâ: "Nâhin, nâhin, sâriân pèlvan hai êklâ Ràjàchà Masthià jâzûn bàrà âni bârâ chauvis manâchâ lôgdâchâ gôlâ thûkilâ âni bàrà âni bàrà chauvis kôs ûrvilâ, thô kharâ pèlvan." Thavaṁ Ràjàchâ Masthiâ bôthlâ: "Miṁ haiṅ thô Râjàchâ Masthiâ jâzûn bàrâ âni bârâ chauvis manàchà lôgdâchâ gôlâ thûkûnśiṁ ûrvilà bàrà âni bàrà chauvis kôs." Aissaṁ bôlthûs thô pàrdhi bôthlà: "Zaiàṁ tûṁ zâśil thaiàṁ miṁ tûjè sangâthi ain. Mèlià tâliṁ tùlâ sôrauchâ nâhin."

Athaṁ dhôgai, Ràjàchà Masthiâ âni pàrdhi èkôt zâuṅ lâglè, Rajàchà Masthià ghôriâvar âni pàrdhi pàiṁ. Barè lamb jèlè thavaṁ Râjàchâ Masthiâlâ vâtlaṁ guê aissaṁ baraṁ nàhin disè guê thiâzûn ghôriàvar baissâvaṁ âni thiàchè dhôsthàn châlàvaṁ. Thavaṁ ghôrà sôrilà âni dhôgai pàiṁ zàuṅ lâglè. Thavaṁ muràd lâmb jèlè thavaṁ èk sûthàr bhêtlâ; thiàchè khândàvar hôthi èk karvath âni pàttivar èkê pôthliân thiàchaṁ bizaṁ sâman. Ràjàchà Masthiân hâṅk mârli thiàlâ âni khabar kêlaṁ: "Arè, sûthàrà, tûjè kârvathichaṁ âni bijè sâmanâchaṁ kauraṁ vazan hoil?"

Sûthàràzûn bôthlaṁ: "Mângè karvathichaṁ vazan hai dâ man âni bizaṁ sàman pânch man, saglaṁ milûn pandhrà man."

Thavaṁ Râjàchâ Masthiâ bôthlâ: "Zar hâmês pandhrà manâchaṁ vazan tûṁ nèthès thar tûṁ môthà baldhâr hais." Thô sûthâr bôthlâ; "Nâhin, nâhin, mânzaṁ bal kaiṅs nâhin Râjâchâ Masthiàchè zòràchê pûraṁ." Râjàchà Masthiâ bôthlâ: "Miṁ haiṅ thò Râjàchâ Masthiâ." Êh sabath aikthûs sûthâr bôthlà: "Thar miṁ tûjè sangâthi èthaiṅ, âni aśèn tûjê mèrè marnâpâvath.

Athaṁ thigaizan, Ràjàchâ Masthiâ, pârdhi âni sùthâr zâuṅ lâglè. Châl, chàl murâd dhissàṅśim pôṅchlê èkè gâṅvàlâ, pûn bagithân thè kà: sàriṁ gharaṁ dhâraṁ ûgriṁ, thaśiṅs thari dhukànaṁ pûn, àni èk mànûs aissâ bagâvà nàhin.

Ràjâchâ Masthià bôthlà: "Kà êvâsthâ gharlei thê àpûṁ âiàṁ rêuṅ âni bagûṅ." Èk môthaṁ ghar hôthaṁ thiàmani òsthi kêli. Èkê dhûkanâvarśiṁ thiànà jêṁ pàizath hôthaṁ thêṁ jhêthlaṁ thaiâṁ paiśê thêvûnśiṁ, ràṅdhilaṁ âni khaûnśiṁ niṅzlê.

Sakàlchê ûthlê thavaṁ Ràjàchà Masthià bôthlà sûthàràlà: "Pàrdhi âni miṁ zâthâuṅ firàvà, tuṁ àz jêvan thaiàr kar."

Sûthâr kabûl zhailà, dhûkânâvarśiṁ dhâl, thûp âni bijià jinsà jhêthlià paiśê thêvûnśiṁ âni ràṅdhàvà làglà. Zaràk vakthàśiṁ dhàn thaiâr zhailaṁ âni sûthàràn êkê pàthràvêlivar richvilaṁ, thavaṁ êk rànkhas thin màr ûṅch ailâ âni bôthlà guê dhàn dhê nàhin thê tûlà khâin: Sûthâr ghâbarlà âni dhàn dhilaṁ rànkhsàlà. Rànkhsàzûn khàlaṁ âni naipêth zhailà. Sûthâr bizaṁ dhàn ràṅdhûṁ lâglà thauriàn Ràjàchà Masthià âni pàrdhi ailê âni khabar kêlaṁ jànthàr thaiàr zhailaiṁ ka. Athaṁ sûthàr bagithôthà guè Ràjàchâ Masthiâlà khabar nàhin milâvi guè êk rànkhas ailà àni êkdàṁ dhàn ràṅdhilaṁ thêṁ khàlaṁ thiàthô thiàzûn bizaṁ kaiṅ nimith sângathlaṁ. Athaṁ thigaizan ghâṅsarlê âni ràṅdhûnśiṁ khâlaṁ âni niṅzlê.

Bijê dhissà ûthlê thavaṁ Ràjàchà Masthià bôthlà pàrdhiàlà: "Âz tûṁ gharà rê âni ràṅdh, miṁ âni sûthàr zâthâuṅ firàvà." Aissaṁ bôlûnśiṁ dhôgai jêlê firàvà. Pàrdhiàzûn dhûkânâvarśiṁ jêṁ paizath hôthaṁ thêṁ hàrlaṁ âni ràṅdhàvà lâglà. Dhàn śizlaṁ âni pàthràvêlivar richvithei thavaṁ rankhas ailà âni dhàn màṅgûṁ lâglà. Pàrdhi pailà dhêth nôthà pûn rànkhas bôthlà:

"Dêthês kaṁ kâ sàngthês; dhan dhê nàhin the pailà tûlà khàin." Pàrdhi bilà âni rânkhsâlâ dhàn dhilaṁ. Rànkhsàn dhân khalaṁ âni naipêth zhailà. Athaṁ pârdhiàlà samaz milli guê sûthàràlà thari rànkhas bhêtâvà ailaśèl âni thiàthô kâl ôkath zhailà dhân ràṅdhâvà. Pàrdhi maghàri dhûkànâvàr jêlà, dhâl thûp hàrlaṁ âni bizaṁ dhàn ràṅdhûṅ làglà thavaṁ Ràjàchà Masthià âni sùthàr ailê âni jànthàr màṅgûṁ làglè. Sûthàràn dhian pôṅchvilaṁ guê rankhas êûnsiṁ dhân khàlaśêl. Pârdhiàzûn eujilaṁ guê Ràjàchâ Masthiàlà sàngên kà vichlaṁ thê thê thiàlà râg ail. thiàthò thiàzûn bizaṁ nimith sàngathlaṁ. Thigaizan ghaṅsarlê àni dhàn ràṅdhûnśiṁ khâlaṁ âni niṅzlê.

Thisrê dhissâ ûthûnśiṁ Ràjàchâ Masthià bôthlà: "Âz tûmiṁ dhôgai zà firâvâ, âz mànji pàli ràṅdhâuchi." Pàrdhi àni sûthàr bôthlè: "Pardhàn Sàhib, âmàlà baraṁ nâhin dhiśê guê tûmin ràṅdhûnśiṁ âmàlà khâvàlà dheàvaṁ; thiàthô àmiṁ dhôgai pàli karûṁ êk dhis àr ràṅdhàvâ." Êh aissaṁ bòthlê kàṁ thiànà khabar guê Râjàchà Masthià rànkhsàlà bagil thê thiànà saraṁ hôil; pûn Râjàchà Masthià bôthlà: "Miṁ pardhân hâiṅ thê khari vârthà pùn tûmchi pâli aili thavaṁ tûmin tûmchaṁ kàm kêlaṁ. àz mànji pàli hài àni miṅzûn ràṅdhàvà pàijê. Àiàṁ miṁ pardhàn nàhin, àpùm thigai sârkê, thar tûmiṁ zà firâvà."

Pârdhi âni sùthàr bagithàn gu` kaiṅ bizà ûpài nâhin thavaṁ dhôgai jêlè firâvâ. Ràjàchâ Masthiâ jêlà êkê dhûkânàvar, thanśiṁ dhàl, thûp, âni jêṁ kà bizaṁ pàizath hôthaṁ th·m jêthlaṁ àni ràṅdhàvà làglà. Dhàn śizliàvar êkê pathràvêlivar richvilaṁ, âni zaissà kà vâs èthûs rànkhas ailà âni dhàn mâṅgûṁ làglà.

Ràjàchâ Masthiàn vichârilaṁ: "Kôn hàis tûṁ, àm kà pàij. tùlà?"

Rànkhas bòthlà: "Miṁ kôn hàiṅ thè tùṁ vichârûṁ nakô pùn dhàn dh` èk dam, nàhin thê pailà tùlà khàin."

Pûn Ràjàchà Masthiâ kaiṅ bilà nàhin, âni bôthlà: "Thaurà vakath p.k. maghśiṁ tùlà miṁ dhân dhethaiṅ." Aissaṁ bôlûnśiṁ Ràjàchà Masthià j·là, tharwàr harli âni èk` fatkiàśiṁ rànkhsàchè dhôn tûkr` kèlê. Ek dôṅgar zaissâ zaminivar parlà. Athaṁ Ràjàchà Masthià lagla thiàlabarabôrthapàsava. Thavaṁ thiàrànksàch` kambr·var thiàchi nadar làgli. M`r. j la th` bagithei th` kà. ·k môthà hirà kallà. Thô hirà j·thlà âni zavàsà thavaṁ mêr śiṁ hòthaṁ êk thalaṁ. Thià hiriàchà ûz r kallà thià thaliàlà thavaṁ ·k rasthâ zhailâ. Rajachâ Masthià jêlà m. r. âni èk nisan bagili. Thià nisnivarsiṁ thò dèulà àni pôṅchlà ·k· môth· havelin. Thià hav. lin hôthi èk môthi sô`bivanth sôkri. Thiśiṁ murâdsar vàrthà k·lià, thavaṁ bagithei gu` pàrahi âni sûthàr ·thin khàvàlà thiàthô thô ailà òrthi. Gharâ j là âni nivàth r.là zaissaṁ kà kaiṅs nàhin vichlaṁ. Thaurè vakthaśiṁ pàrdhi âni sûthâr ail·. Khálaṁ pilaṁ âni maghśiṁ Rajàchâ Ma·thiàzûn khabar k.laṁ pailà suthàràpar âni dhusrun pàrdhiàpar gu` pûrch` dhissà jànthàràlà vakath kàṁ zhailà. Thiànzûn sùmàr k.là gu· Ràjàchà Masthiàlà khabar parli rankhsachi thiàthô thiànzûn âplis gûnià sàngathli âni map màṅgûṁ làglè. Ràjàchâ Ma·thiâ samazl. gu` sàriànchi sakhthi kaiṅ sàrki nàhin thiàthò thiàzûn thiànâ màp k·laṁ pùn sàṅgathlaṁ gu` dhusrun aiśi labàri sâṅgûṁ nakò. Maghśiṁ thiânâ n.laṁ âni rànkhsàchà mùrdhà dhâkrilà.

Athaṁ maghśiṁ Râjâchâ Mâsthiàzûn êk môthâ ùṅch bàntâ gàrilà âni thià bàutiàvar livilaṁ: "Sàrê lôkh jè kà jêlian ià gàṅvàṅśiṁ thiànzûn b·dhâsthin iàvaṁ âni thiànch` gharàṅmani riàvaṁ. Tûmchà dhûsmin, rânkhas, màrlâ Ràjàchà Masthiàzûn âni thô athaṁ zhailà râzâ ià gàṅvàchà." Thanchê gàuṅkariaṅzùn thê sabath vâchithûs khuśi zhailè âni èàṅśiṁ âplês gharan rêuṅ làglê. Sàre lôkhàzûn thò mùrdhâ rànkhsàchâ bagunśiṁ ajèbân bharlê àni Râjàchà Masthiàlà sukh âni mòthi haiàth màṅgûṁ lâglê.

Athaṁ thauraṁ thèp rêl` ià gâṅvàmàni. Râjâchà Masthiàzûn êk dhis sûtharàlà nêlaṁ thiâ thaliàmani hâv·li hòthi thaiàṁ thià sokrich· nadrêvar. Athaṁ thiṁ dhògvaṁ êkè bijiàlà aśim khuśi zhailiṁ guè Ràjàchâ Masthiàlà kàklû·h vâtli sûth·ràchi àni thiàthô thi` dôgâṅchaṁ varâd tharàvilaṁ. Muràd dhis thavaṁ thaiàri kêli. S.ê gàṅûkariànàṁ àṅ·thilaṁ ani mur.d dhis thavaṁ hous moz sàri·ṅzûn kèli.

Ià gàṅvàmani dhònak varsaṁ rèunśin R.jàch. Masthi·zûn êujilaṁ guê z.vaṁ bijê gàṅṅ bagàvà: thiàthò thiàzûn sûthàràśiṅ àni th·chê ha·kôśiṁ àdêus kèli. Thanchiṅ mànsàṅ khaśi nòthim guê Rajàchà Masth·zûn zavaṁ, pùn thiànch·n thiàlà hòdàrva·h nòthaṁ.

Zàvàchè pûraṁ R.jàch. Masthiazùn hùkùm kêli gu` sarê thiâ gàṅvànch` lôkh.zûn sûthàràlà manàvaṁ thiànchê ràjà parman. Thiàzùn thari thi` sùthàralà thô hira dilà kaṁ guê thialà garaz lòthi thiàchi thià thaliâmani ghar

hôthaṁ thiâmani êvâ zâvâlâ. Sûthârâlâ môthaṁ dhúk vâtlaṁ Râjâchâ Mâsthiâlâ sôrâvâ. Murâd thiâzûn bôthlaṁ thiâlâ thiâchê sangâthi zâvâ karthaṁ pûn Râjâchâ Masthiâzûn kaiṅ kân dilâ nâhin. Zavaṁ kâ bagithei guê Râjâchâ Masthiâ nahin aikê thavaṁ thô bôthlâ thiâlâ: "Pardhân Sâhib, tûlâ sôrâvâ mânâ zaissaṁ kâ êk maran zhailaiṅ, pûn zavaṁ kâ tûji khuśi hâi guê miṁzûn iâ gâṅvân riâvaṁ âni râz châlvâvaṁ tûjê nâviṁ miṁ rêthaiṅ tûji khuśi karâvâ. Pûn kôṅśê vakthân tûlâ kônsaṁ vait vichêl thar mâlâ kaśi khabar milêl? Thiâthô mânâ kaiṅ thari êk khûn dhê jiâvar mâlâ tûje barê vaitâchi khabar parêl aśi." Râjâchâ Masthiâzûn êkê zhârâchâ êk mârâ dhilâ âni thiâlâ sângathlaṁ lâvâlâ. Thiâzûn bôthlaṁ: "Zar kôṅśê vakthân ôh mârâ kômailâ thar samaz guê miṁ hairân laiṅ; âni zar ôh mârâ mêlâ thar samaz guê miṁ thari mêlûṁ." Aissaṁ bôlûnśiṁ Râjâchâ Masthiâ âni thiâchâ bizâ dhôsath, pârdhi, châlthê zhailê. Sârê lôkhâzûn âṅsvaṁ galilîṁ êuzûn guê athaṁ maghâri thiânśiṁ ekê bijiaśiṁ bhêt nâhin hôvâchi.

Râjâchâ Masthiâ âni pârdhi dhôgai jêlê murâd lâmb. Murâd dhis châllê âni êkê gâṅvâlâ pôṅchlê. Thaiâm êkê dôkrichê gharâ jêlê âni birâdh mângathlaṁ. Dôkrizûn hauśêśiṁ dhilaṁ. Athaṁ iâ dôkrichiâ hôthiâ sâth sôkriâ, disnian môthiâ sôbivanth. Dâkhl[illegible] sôkrichê pôttân hôthâ êk sarap, âni zar kôni mânûs niṅzlaṁ thichê mêrê th[illegible] thô sarap râthchâ bênê niṅgê âni thiâlâ khai. Iâ karthaṁ thi dôkri hôthi murad khanthi. Dôkrichê mêr[illegible] Râjâchâ Masthiâzûn khabar kêlaṁ kaiṅ aśi khanthi hôthi thê âni thizûn sângathliâvar thiâzûn sangathlam guê thô sângêl thaissaṁ karil thê thô thilâ baraṁ karil. Rajâchâ Masthiâzûn sângathlaṁ hariâ sath man gaṅvânchaṁ pît, sath man sâkar âni sath man thup. Dôkrizûn jêlî sângathlaṁ hôthaṁ thêm thâbôrthôp har'aṁ âni Râjâchâ Masthiapar dhilaṁ. Rajâchâ Masthiâzûn êk bauli kêli âni râthchi thiâ sôkrichî mêrê thêvili, âni dôkrilâ sângathlaṁ "khabardar, mêrê êuṅ nôkô." Aissaṁ sangûnśiṁ thô êkê bazûla ûba rêla naktê tharwariśiṁ. Bari râth zhauli thavaṁ thô sarap niṅgela âni tôṅchâ marla thia baulivar. Zavaṁ ka bagith i guê gôr lâgthei thavaṁ akhâ niṅgala, thia baulivar p[illegible]ndlaṁ k[illegible]laṁ ani lagli khavali; thiâs vakthan Rajacha Masthian êkê tatkiâśim pâṅch sa tuk[illegible] k[illegible] ani thiâśiṁ khâṅslâ. Dôkrizûn bagithûs dhaṅvath aili âni êkê tûkriâlâ hâth gâthlâ thavaṁ Râjâchâ Masthiâzûn hâthâchê dhôn tûkrê kêlê. Athaṁ thô hâth ani thiâ sarpâchê tûkrê jêthlê âni jêlâ.

Bijê dhissâ Râjachâ Masthiân bhêz jêthlâ êkê vâidachâ âni dôkrichê dhârâśiṁ êunśiṁ zôrâśiṁ bôthlâ guê vâriâ pôtâlâ vôkhan dhên, kônâchâ hâth bith kâplaśêl thê baisvin âni bijê âzâr barê karin. Dôkrichê êkê sôkrizûn aikathlaṁ âni jêli âni aisla sângathlaṁ guê êk vâid ailai thê aissâ aissâ bolthêi. Thavaṁ dôkrizûn sângathlaṁ thiâlâ varâvâ. Râjâchâ Masthiâ ailâ, ail pail lâvilaṁ âni thiâ dôkrichâ hath baisvilâ. Dôkri khuśi zhaili âni bôthli: "Bol tûlâ kâ paijê thê; jaṁ mânghśil thêṁ miṁ tûla dhên." Thavaṁ Râjâchâ Masthiâzûn sângathlaṁ thô kôn hôthâ thê âni bôthlâ: "Mânâṁ tuzâm sônaṁ nânaṁ nôkô, pûn tûji sôkri jilâ miṅzûn baraṁ kêlâm thi tûzûn dhiâvi paijê mânjê dôsthâlâ, iâ pârdhiâlâ." Dôkri kabûl zhaili âni thaurê dhissân pârdhiâchaṁ varâd zhailaṁ thiâ dôkrichê dhâklê sôkriśiṁ.

Kaiṅ thêp thaiâṁ rêunśiṁ Râjâchâ Masthiâzûn vichâr kêlâ zâvâchâ bijê gâuṅ bagâvâ. Dôkri âni bijiṁ mânsaṁ khanthi zhailiṁ. Murâd bôthlaṁ thiâlâ pûn thiâzûn kaiṅ kân nâhin dhilâ. Thavaṁ pârdhi bôthlâ: "Pardhân Sâhib, tûṁ zâthês pûn mânâṁ baraṁ nâhin vâttê, pûn miṁ rên âiâṁ tûji khuśi karâvâ. Mânâṁ thari kaiṅ khûn dhê jiavar mânâṁ samjêl tûjê barê vâitâchaṁ." Râjâchâ Masthiân êkê zhârâchâ êk mârâ dhilâ pârdhiâlâ thari âni thilâ sângathlaṁ: "Zar ôh mârâ cômêl thar samaz gu[illegible] miṁ âzâri parlâuṅ âni ôh mârâ mêlâ thê samaz guê miṁ thari mêlûṁ." Aissaṁ bôlûnśiṁ Râjâchâ Masthiâ jêlâ; sârê thiâchê dêkhê vôlkhêchê khanthi zhailê.

Râjâchâ Masthiâ niṅgalâ êklâ, thiâchê sangâthalâ thiâchi tharwâr, âni iâ khiris bizaṁ kôn nâhin. Châl chal jêlâ murâd dhis thavaṁ âni pôṅchlâ bijê êkê gaṅvalâ. Thiâ gâṅvân thari sariṁ gharaṁ dhâraṁ âni dhûkânaṁ hôthiṁ ûgriṁ pûn êk githâ jiu nâhin bagâvâ. Thaiâṁ thiazûn bagih êk môthi kalai thêlaśiṁ bhalli êkê chûlivo. Rajachâ Masthiazûn vichâr kêlâ guê thaiaṁ pêkhavaṁ âni bagâvaṁ kâ dhôṅg hai thê; âni êkê zharimani thô likâlâ. Thaurâ vakath nahin jêlâ thavaṁ êk môthâ râṅkhas, sath mâr ûṅch, ala êk kâvar jêthi thiâchê khândavâr mansamśiṁ bhalli ani thiṁ mânsaṁ thiâzûn ghathliṁ thiâ kalaimani âni ekiâ magari êk saghliṁ khaliṁ. Thiazûn śêvtâchâ manûs khala thavaṁ Rajachâ Masthiâ êunśiṁ

thiâchê samôr ûbâ rêlâ. Thiâlâ bagithûs rânkhas bôthlâ : "Âh! kaisâ hauśêsâ ghâṅs zhailasthâ, pûn kaiṁ fikir nâhin, zari kâ minzûn auriṁ mânsaṁ khâliân thari tûlâ miṁ khâiṅ." Aissaṁ bôlthûs Râjâchâ Masthiâlâ râg ailâ âni êkê fatkiâśiṁ râs ghâthli rânkhsâchi êkê dôṅgrâchê gathi. Maghśiṁ thô lâglâ thiâlâ thapâsâvâ; thavaṁ thiâchê kambrêvar thari êk môthâ hirâ millâ. Athaṁ âiâṁ thari hôthaṁ êk thalaṁ. Râjâchâ Masthiâlâ vâtlaṁ guê iâ thaliân thari ghar aśêl. Thavaṁ thiâzûn thô hirâ dhâkrilâ thiâ thaliâlâ. Thaliâvar thiâ hiriâchâ ûzêr parthûs êk rasthâ zhailâ, âni êk nisan hôthi thivarśiṁ thô deulâ êkê gharan. Thaiaṁ thiâzûn bagili êk sarûp âsthri, aśi sôbivanth guê sârê dûnimani thaśi nôthi. Râjâchâ Masthiâśiṁ âni thiśiṁ hâmsai parli âni thiṁ êkê bijiâlâ aśiṁ khuśi zhailiṁ guê thiânzûn vichâr kêlâ varâdâvchâ. Thiâs dhissâ thô bênâ âilâ ani êk bâuthâ gârilâ âni thiâ bauthiâvar livilaṁ: "Sârê lôkhâzûn kôn jeliân iâ gâṅvâśiṁ thiânzûn vin dhâsthiśiṁ iavaṁ. Tûmchâ dhûsmin rânkhas thiâlâ mâllaṁ Râjâchâ Masthiâzûn." Athaṁ thiâ lôkhâzûn Râjâchâ Masthiâlâ baghilaṁ nôthaṁ pûn thiâlâ sârê lôkh ôlkhithasath kâṁ thê thiânzûn aikathlathaṁ kaissâ thiâzûn bârâ âni bârâ chauvis manachâ lôgdâchâ gôlâ thûkûnśiṁ bârâ âni bârâ chauvis kôs ûrvilthâ thê. Thavaṁ thiânzûn thiâ bâuthiâvar livilthaṁ thêṁ vâchithûs khuśi zhailê âni ailê âni âplês gâṅvân vâghûṁ lâglê.

Kaiṅ thêp jêlaṁ âni Râjâchâ Masthiâzûn sârê raithêlâ sângathlaṁ guê thiâchi khuśi hai varâdâvâ thiâ thaliânchê sôkriśiṁ, âni sâri raith thari khuśi zhaili kâṁ guê thê samazlê guê Râjâchâ Masthia varâlêl thê thô gâuṅ sôrûn thô kadhûn zâvâchâ nâhin, âni êkhadhiâ bikhâdhiâ bizâ rânkhas aslâ thari thiânâ kaiṅ dhâsthi nâhin parthi kâṁ thê Râjâchâ Masthiâ thiâlâ mârthâ. Athaṁ khûb thaiêśiṁ murâd dhis thavaṁ varâdâlâ kâṁvilaṁ, thêṁ varâd môthê khuśâlin karâvâ. Sârê lôkhâlâ âuṁthilaṁ âni murâd dhis thaspar sâriâṅzûn khâlaṁ pilaṁ âni haus môz kêli.

Maghśiṁ thiâ gâṅvâchê lôkhâzûn Râjâchâ Masthiâpar âni thiâchê baikôpar mânguaṁ mângathlaṁ guê thiânzûn hovaṁ râzâ âni rânî thiâ gâṅvâchi, âni thiṁ dhôgaṁ thari kabûl zhailiṁ.

Murâd thêp thavaṁ thiṁ rêliṁ khuśâlin pûn athaṁ kâ zhailaṁ? Râjâchâ Masthiâchaṁ dhiân miân saghlaṁ hôthaṅ thiâchê baikôvar âni râzasthanâchê karbârâśiṁ âni tharwâr pâzvâchi viâdh kêli nâhin. Thavaṁ thi tharwâr kitaizûṁ lâgli âni Râjâchâ Masthiâ thari lâglâ vâit passâr hôvâlâ. Thaśiṅs thari thiṁ zharaṁ jiṁ kâ sûthârâlâ âni pârdhiâlâ dhilthiṁ lâvâlâ thiṁ lâgliṁ kômâvâ. Sûthârâzûn âni pârdhiâzûn śimpiliṁ, khânaṁ ghâthlain, âni murâd kuidâdh kêli thari thiṁ dhissân dhis lâgliṁ marâvâ. Thavaṁ thiânzûn sûmâr kêlâ guê Râjâchâ Masthiâlâ, kaiṅ thari vait vichlaiṁ âni niṅgâlê thiâlâ sôdhâvâ zâvâlâ. Pailâ niṅgâlâ sûthâr âni châl châl murâd dhissâṅśiṁ bhêtlâ pârdhiâlâ. Thô thari thaiâr hôthôtha Râjâchâ Masthiâlâ bagâvâ zâvâlâ. Athaṁ dhôgai lâglê zâvâlâ. Vâttê pârdhiâzûn sângathlaṁ sûthârâlâ kaissâṁ Râjâchâ Masthiâzûn êkê dôkrichê sôkrilâ, jichê pôttân hôthâ êk sarap, thilâ baraṁ kêlaṁ âni śêvtâs thichaṁ âni thiâchaṁ varâd kêlaṁ. Thavaṁ châl châl murâd dhissâṅśiṁ pôṅchlê Râjâchâ Masthiâchê gâṅvân, pûn thô kaiâṁ rêthaśê thê thiânâ khabar kaśi milêl. Thavaṁ thiânzûn bhêz firvilâ: pardhi zhailâ chanâkurmurîwâlâ âni sûthâr bâṅgrîwâlâ. Aissaṁ karûnśiṁ gharôghar firûṁ lâglê âni khabar jhêuṁ lâglê Râjâchâ Masthiâchi. Sêvtâs sûthârâlâ, bâṅgrîwâliâchê bhêzân, êkê dokrilâ bâṅgriâ bharithaṁ, khabar milli. Thavaṁ sûthârâzûn âni pârdhiâzûn bhêz sôrûnśiṁ jêlêi âni sûthârâchê mêrê hirâ hôthâ thô dhâkrilâ thiâ thaliâlâ âni âumani dêulê.

Môthê naśib Râjâchâ Masthiâchê guê thiâ vôkthâvô pôṅchlê kâṁ thê thô hôthâ agdhi marnâchê kântâvô, âni kônzânê êkê dhôn dhissân mêlasthâ.

Thê dhôgai, sûthâr âni pârdhi pôṅchliâ barâbôr pailâ khabar kêlaṁ Râjâchâ Masthiâpar guê thiânchân kaiṅ ûpai karvavêl kâ thiâchâ âzâr barâ karavâthô. Thavaṁ Râjâchâ Masthiâlâ viâdh parli thiâchê tharwârichi âni thiânâ sangathlaṁ pâzvâlâ. Thâbôrthôb dhôgai ghaṅsarlê âni tharwâr pâzvâlâ lâglê. Zaiśi thi tharwâr sâp hôvâlâ lâgli thaissâ Râjâchâ Masthiâchâ rôgh halkâ hôvâlâ lâglâ, ani tharwâr agdhi tharwâr sâp hôthûs thô thari ûthlâ âni châlûṁ lâglâ zaissaṁ kâ kaiṅs nâhin vichlaṁ thiâlâ.

Sûthâr âni pârdhi thaurê mainê thaiâṁ rêunśiṁ Râjâchâ Masthiâlâ bôthlê guê thiânchi khuśi hai thiâchê mêrê rêvâlâ. Râjâchâ Masthiâla thari murâd bhâriṁ vâttûṁ lâglaṁ thiânâ sôrâvâ, thiâthô thiâzûn sângathlaṁ thiânâ gharâ zavâlâ âni thiânchê baikânâ jêthi êvâlâ.

The jêlê thiànchê gàṅvàlà âni thiànchà baikà jèthi niṅgàlê, âni sàrê thiànchê dhâsath âni dhôsath muràd khanthi zhailè.

Zavaṁ kà thê dhûsrûn pôṅchlê Ràjàchà Masthiàchê gàṅvàlà thiànà Ràjàchà Masthiàzûn tharàvilaṁ kàrbàri. Athaṁ Ràjàchà Masthià, pàrdhi âni sùthàr àni thiànchà thigzani baikà èkè mèrê rêlim khuśàlin âni zaiśê kà bhâu àni baini parman vàparlim thiànchi haiàth thavam. Sàrê lôkh thiànà màn manthà karûm làglê ; àni zavaṁi kà mêlê thavam muràd thèp thaspar sàrê lôkhàzûn thianchi viàdh kèli.

CHINGHIZ KHAN AND HIS ANCESTORS.

BY HENRY H. HOWORTH, F.S.A.

IVA.

[*This chapter was unfortunately lost in transmission to India. It has been re-written and ought to be inserted between chapters IV. and V.*]

I have mentioned how Yessugei on his death-bed summoned Munlik and bade him tell his brothers and other relatives what had happened. That faithful servant first went to bring Temujin home. the boy having stayed behind with Dai Setzen, the father of his betrothed, when her father set off home again. He did not disclose his master's death to Dai Setzen ; it might have been dangerous to do so. He determined to keep silence about it until he had informed Yessugei's own relatives and merely said that Yessugei was very anxious about his son Temujin and had sent him to fetch him.[1]

During the spring of the same year, while the two widows of Hanbakhai or Anbakhai, named Orbo and Sokhatai, were offering sacrifices to their ancestors,[2] Khoilun Yessugei's widow arrived too late and was not presented with any of the sacrificial meats.[3] Khoilun complained of this, claiming that as her husband was dead and her children infants, she was entitled to share in the meats and by refusing her they were cutting her off from the family. Orbo and Sokhatai resented her language, saying she only spoke in this way because Anbakhai was dead,[4] and suggested that they should abandon her.

The next day Tarkhutai Kiriltukh and Todoyan Girte[5] raised the camp and abandoned Khoilun and her children. The old servitor, Charakh,[6] agreed with them, but Todoyan said, "The deep water has dried up and the precious stone is broken. Wherefore should we cling together?" They not only did not heed Charakh's words but they thrust a spear into his back.[7]

Temujin went to visit Charakh when lying wounded in his house. The latter said to him : "They have carried off the people collected by thy father, when I expostulated with them they wounded me." Temujin wept and then withdrew.[8] Khoilun now mounted her horse, and having put her standard at the head of a lance went in pursuit. She managed to stop half the fugitives. but this was only for a short time, for they speedily left her and went and joined the Taijuts.[9]

Khoilun, being thus deserted, shewed zeal and endurance in bringing up her children, collecting fruit and digging up roots to feed

---

[1] *Yuan-ch'ao-pi-shi*, p. 37.

[2] *i.e.* to those of the Royal family.

[3] These sacrifices were great bonds between members of the same family or tribe. and the meats offered at them were sanctified by having been partaken of by the spirits of their ancestors, and were duly divided among those at the feast.

[4] *i.e.* unable to defend them.

[5] They are called Anbakhai's sons in note 85 to the *Yuan-ch'ao-pi-shi*. Rashidu'd-din makes Tarkhutai the son of Adal Khan, son of Kadan Taishi, son of Anbakhai. D'Ohsson. 1-39 note. The same author explains Kiriltuk to mean covetous and envious, while Abulghazi, who calls him Barghutai Kiriltuk, explains the latter word as meaning an old man who is becoming decrepid. Erdmann, p. 218, note 2. Todoyan is called Toguan Khorchi in the *Hoang Yuan*, Todo Khurji in Hyacinthe's translation of the *Yuan-shi* and Tulan Kahuji by Rashidu'd-din. According to the latter he was the son of Kadan Taishi and was therefore the brother of Adal Khan. Erdmann. 218, 259 and note 38.

[6] *i.e.* Munlik, called Jerkeh Abugan by Rashidu'd-din, Chalakhan in the *Hoang Yuan*. In the previous chapter I have written his name Jarakha.

[7] Rashidu'd-din says wounded him in the knee with an arrow.

[8] *Yuan-ch'ao-pi-shi*, p. 37.

[9] Rashidu'd-din calls the standard used by Khoilun *tug* or *tuk*. The name is said to be derived from the Chinese *tau* or *tu*, but it occurs in the famous old Persian work the *Vendidad* in the form *tota*. The Chinese emperors used such a standard made of a yak's tail stained red and fastened to a spear, and they gave it as a symbol of authority when conferring the royal dignity upon the Chiefs of the Turks and other border tribes. Among the Western Turks and Persians it has been regularly used as a symbol of military authority, and as the yak is not found there a horse's tail is generally substituted. Occasionally these tails are as much as 3½ feet long. The famous Imperial Mongol standard of later days consisted of nine white yak tails. There was also a standard of black tails called *alla* by Ssanang Setzen, from this Erdmann derives *sultan*, the name by which the Russians distinguish the plumes on Russian helmets. Erdmann *Temudschin*, etc., p. 259, and note 39. D'Ohsson. p. 1, note 10.

them with. When they were grown up they all had indications that they belonged to a royal lineage, and, although scantily fed, grew up strong and were famous wrestlers. We are further told they made a fishing rod of thorns, and also made nets with which they caught fish for their mother in the river Onon.[10] On one occasion when Temujin was fishing with his brothers Khasar, Bektur and Belgutei, he secured a golden-coloured fish. Bektur and Belgutei took it away from him, and Temujin and Khasar complained of this to their mother. She remonstrated[11] with them for quarrelling thus, and remarked that beyond their own kin they had no friends, just as a horse has no lash but his own tail, adding that if they continued to quarrel they would not be able to revenge themselves on the Taijuts. Temujin and Khasar were offended that their mother did not side with them, remarking that if they were to be always treated thus, how were they to live together? Both brothers then threw the door-curtain violently aside. Bektur at this time sat on a hillock pasturing his horse.[12] His two offended brothers crept up to him, one from before and the other from behind, and determined to shoot him. Bektur saw them, and asked them if in lieu of the necessity of revenging themselves on the Taijuts they were going to treat him like you would a hair in the eye or a mole on the face. He entreated them at least to spare Belgutei, and then drew himself together, sitting with his feet drawn up and awaited their arrows. They shot at him from before and behind, until he was dead. When Khoilun heard of what they had done she remarked: "You, Temujin, at your birth held a clot of black blood in your hand; you two are like dogs biting your own ribs, like hawks falling on the rocks, lions boiling with unconquerable hatred, serpents swallowing your prey alive, eagles swooping at a shadow, great fish which devour their prey silently, mad camels biting the heels of their own young, wolves seeking their food in snow and wind, ducks[13] who, unable to drive away their young ones, eat them, tigers whose ferocity you cannot restrain. What have you done? How came you to act thus when you ought to have been thinking of revenging yourselves on the Taijuts?" Thus did Khoilun rebuke her sons.[14] Some time after this Tarkhutai Kiriltuk remarked that Temujin and his brothers who had been abandoned by himself and his people had grown up like wild animals, and taking some companions with him he went out to ascertain what had become of them. Temujin and his mother on their approach were afraid and went into the forest, where he made an arbour out of some branches for a residence while he hid his two little brothers and sister, Khachuin, Temuge and Temulun in the cleft of a rock. Khasar was out shooting and encountered the Taijuts, who shouted to him: "We only want your eldest brother, the others we do not want." Temujin overheard this and fled into the wood. The Taijuts went in pursuit as far as the hill Terguneh. Temujin disappeared in the thick of the wood which was thereupon surrounded by the Taijuts. After he had passed three days there he determined to leave it, but as he was setting out the saddle fell off unexpectedly, upon which he said to himself, "Granting that the saddle will sometimes fall off when the girths are tight—How can it do so when fastened with a breastband also?" The misfortune made him think that heaven was against his trying to escape. He turned back again and stayed another three days, but just as he was leaving the wood again he noticed that a large white stone, the size of a *yurt* or tent, had fallen down and closed his path. This seemed another interposition of providence, so he turned again and spent another three days. All this time he had eaten nothing. Finally he determined to go out rather than die there. He accordingly took his knife with which he made arrows and cut a path round the stone which had fallen across the road, along which he led his horse and descended the hill. The Taijuts who were on the lookout caught him and carried him off. Tarkhutai ordered that the Chinese wooden collar known as the cangue was to be put upon him, that he was to be taken round to all the various encampments, and

[10] *Yuan-chao-pi-shi*, 37, 38.

[11] The *Altan Topchi* says that on another occasion Bektur took a bullfinch which Khasar had shot.

[12] *Altan Topchi* says he was looking after eight geldings.

[13] Chinese ducks are the symbols of fidelity.

[14] *Yuan-ch'ao-pi-shi*, p 38-40, Ssanang Setzen, p. 65, *Altan Topchi*.

kept 24 hours in each. In this way he passed the time till the 16th day of the 14th month which was a celebrated holiday; on that day the Taijuts made a feast on the banks of the Onon. At sunset, when they scattered to their several houses, they ordered a weak-headed lad to keep watch over Temujin. The latter seized the opportunity and struck the boy with the cangue or wooden collar, knocked him down and then ran away. Having reached a wood by the Onon he entered the river and concealed his body, keeping his face only above water. The Taijuts having learnt of his escape, commenced to search for him in the clear moonlight. Meanwhile Sorkhan Shira of the Sulduz tribe, who was one of the searching party, noticed him and said to him: "It is because you show sagacity like this that the Taijuts hate you—I will not betray you." He passed on and presently as the Taijuts returned he said sarcastically to them: "You have lost a man in the daylight and now you try and find him again in the dark! Let us search new ground where we have not already been, and if we don't find him let us renew it again to-morrow. Where can a man go who is encumbered with a cangue." During this second search Sorkhan Shira again passed close to Temujin and said to him: "We are finishing our search for the night and shall renew it to-morrow. Take advantage of this and go and find your mother, and if you meet any one don't say you have seen me."

(To be continued.)

CORRESPONDENCE.

PAMER—BOLOR—OXUS

SIR.—Regarding the significations of the words **Pamer**, **Bolor** and **Oxus** given in note 737 of Vol. IV. of the *Indian Notes and Queries*, I should like to make the following remarks:—

The word **Pamîr** or **Pamêr** seems to signify, at present at least, an uninhabited highland Steppe, and is perhaps a Turko-Tartaric word. The **Bam-i-dunyâ**, roof of the world, contains several *pâmîrs*; for instance, there are the Great, the Little, the Yashil, the Khargûsh, the Riangkul and and other *pâmîrs*. If *pâmîr* be an Indo-Germanic word, it should be considered that *bâm*, Persian for roof, was, in old Persian, *bâm*; and regarding the word *ar* for mountain, old Persian *ara*, Zend *hara*, Pehlevî *har*, "it must remain doubtful whether the Zend *hara*, which is only used for the great mountain which surrounds the world is an Indo-Germanic or Semitic word."[1] The Turko-Tartaric word *ar*, *ur*, also means 'high,' and its derivatives form height, column, hill, hump, &c. Is Pamîr then from Indo-Germanic or Turanian?

The word **Bolor** is not, as the note 737 says, "another name of the lofty plateau," it is the name of a mountain chain further east and the name of a district, south or south-west of it. The name however is not known to the natives, or only to a few, who are Dards, and who call Baltistân Bolor.[2] If Bolor be an Indo-Germanic name it could hardly be *bala* + *ar*; *bala* in old Persian was probably *berda*,[3] in Zend it was *barza* (cf. Alburz, the modern form of Hara-berezaiti). Is Bolor therefore Indo-Germanic or Turanian?

It seems to be generally accepted that Turanian appellations for localities in the Pâmîr regions cannot date before the 6th century of our era. If therefore the names Bolor and Pâmîr can be found at that time we might suppose them to be Indo-Germanic.

The old Persian name for the **Oxus** was **Wakh, Wakhs, Wakhshû** pronounced Ukhshu(?) **Wakhshâb**, and **Wakh-âb**, actual names of tributaries of the Oxus. **Wakhsh** was the name of a part of Badakhshân; it joined **Khatlân** and was famous for its horses. **Wakh, Wakhan**, is the name of a district east of Badakhshân. Oxus is the Greek transcription of the Indo-Germanic Wakhshû, Polybius (10, 48) writes it Oxos; Strabo, Ptolemy, and many other writers write Oxus. **Aq-û** (white water) is a modern Turanian appellation of a small tributary of the Oxus.

The **Bolor** Chain is the Qizil-Yart Chain of Hayward, at the eastern end of the Pâmîrs, and runs meridionally from the Thian-shan on the north to the Kuenlun on the south; it is also called Bulart-dâgh, the Cloud-mountain.[4] Its northern part, the Mus-dâgh Ice-mountain, joins the Thian-shan; its southern part is called Tsung-ling Onion-mountain. The district Bolor[5] is placed by the S[illegible]-*[illegible]-fan-ki* about 41° west of Pekin and in Lat. 37°, 12 days west of Sar-i-Kol and 26 days from Kâbul.[6] Its southern part was Balti, the present

[1] [illegible] p. 50.
[2] [illegible] *L.* [illegible] 31.
[3] [illegible] Vol. I. p. 97.
[4] A. von [illegible].
[5] Col. Yule, *J. R. A. S.* VI. 107, calls it "the semi-mythical Bolor."
[6] [illegible], Berlin, 1882, p. 409.

Baltistân.[7] Hiuen Tsiang in the 7th century[8] calls the **Indus** the **Poliu** (Bolor) river, and speaks of the Kingdom of **Pololo** (Bolor) as lying south of **Pomilo** (Pâmir) valley.[9] The *T'ang* history, speaking of the year 747, mentions Pulu (Balti?) and Pomi (Pâmir?).[10] Ulugh Beg in his *Tables* places Bulûr or Bulûreh in Long. 108° (from the Fortunate Islands) and Lat. 37°. The *Zubdet-et-Tewârîkh* of Haidar Râzî mentions under A. H. 933, when Sultân Sa'îd Khân sent his son Rashîd Sultân into Kâferistân, that **Bulûr** (**Bolor**) was situated west of Yârkand and Kâshghar, south of Badakhshân, east of Kâbul and north of Kashmîr: that is, it stands for the present **Kâferistân**, or part of it. The Oxus is mentioned as Kwai-shui (the Wakh river) in Sze-ma-ts'ien's *Shi-ki* of the second century B.C.[11]

A. HOUTUM-SCHINDLER.

Teheran.

A NOTE ON JUDEO-PERSIAN LITERATURE.

SIR,—The **Jews of Persia**, scattered about in Yezd, Kermân, Shirâz, Isfahân, Kashân &c., do all their writing and correspondence in the **Persian language** but in the **Hebrew character**.

They have in this way preserved some Persian works not otherwise now to be met with. So far, however, I have found little else than stories and tales in the Persian language written in the Hebrew character. The Jews have the *Dîwâns* of Hafiz, Sa'dî, the *Khamsah* of Nizâmî, and the prose and metrical works of other popular Persian authors in their own character. They also have a Persian metrical translation of the *Pentateuch*, which they say was written by order of Nâdir Shâh; and a few other works in Persian and Hebrew combined. I hope to communicate the result of further investigation in this subject.

S. J. A. CHURCHILL.

MISCELLANEA.

PERSIAN LITERATURE UNDER THE QAJARS.

RUSTEM UL HUKEMA.[1]

One of the most prolific, and yet but little known, contributors to the Literature of the early troubled dawn of the dynasty which has for over a century now successfully assumed the sovereignty of the once mighty empire of the Persians, is **Muhammed Hâshim-ul-Musavi-us-Safavi**, styled **Rustem-ul-Hukemâ**.

Few biographical details relating to this writer have been discovered. Almost all that is known of him is that which is gleanable from his own literary remains, according to which we learn that in A H. 1203, in his twenty-third year, he undertook a journey to Bukhârâ in order to visit his maternal uncle, Hâji Bâbâ Khân, the Dîvân Begî; an undertaking which he does not appear to have carried out in its entirety. The Rustem-ul-Hukemâ adopted Asef as his *takhallus*, or poetical *nom de plume*. His father's name was Amir Muhammed Hassan, and the family originated from Shîrâz, where Asef was born.

He has a *Dîvân* containing *qasîdehs* in honour of Karîm Khân, the latter Zand rulers and Fath Ali Shâh, etc. It begins

اي قادر ذوالجلال دانا
وی مالک بی وزیر و همتا

I expect there is a mistake, or rather a clerical error, in the second hemistich, which should read نظیر instead of *vazîr*.

Some *ghazels* begin

ای کاخ جلال تو ازاین طارم مینا
بیشک بهزاران درجه ارفع واعلا

The *Dîvân* also contains *qat'ahs*, *targîbands*, and *rubâ'is*. Following the *ghazels* is a prose tract, in which the author states that in A H. 1208 he was in his sixty-eighth year, which is no doubt a clerical error for twenty-eighth year. In this tract he further mentions that he collected together his poetical effusions composed prior to this period, and named the *Dîvân* مجموعة الفضایل. The collection was made at Isfahân.

Besides this work the Rustem-ul-Hukemâ composed the following کلزار حکمت, which can scarcely be described better than in the author's own words:

خلاصه اوامر و نواهي كتب آسماني يعني صحف
و زند و پازند و تورت با برکات و انجیل جلیل
و زبور پر نور وفرقان مطهر کریم مجید و خلاصه
علوم خمسه یعني علم معیشت وعلم طب وعلم دین
وعلم نجوم و علم تعبیر در آن مذکور و مندرج
است بطریقه سوال و جواب

In his fourteenth year he composed a شرح فارسي الفیة. One of his more important works

[7] Cf. the Βύλται of Ptolemy VI. 13, 3.
[8] See Yule, *J. R. A. S.* VI. 114. [9] Ibid. p. 117.
[10] Dr. Bushell, *J. R. A. S.* XII. 530.
[11] Kingsmill, *J. R. A. S.* X. 297, XIV. 78.

[1] This writer's transliteration remains as [illegible] at his own request. It differs from that adopted in this journal generally.—ED.

is the رستم التواريخ; a history of Shâh Sultân Husain Safavî, Mahmûd Shâh, Ashref Shâh Afghân, Shâh Tahmâsp, Nâdir Shâh, 'Alî Shâh, Ibrâhim Shâh, Azâd Khân Afghân, Abû'l-Fath Khân Bakhtiârî, 'Alî Murâd Khân Bakhtiârî, Fath 'Alî Khân Afshâr; the conquest of Isfahân by Muhammed Hasan Khân Qâjâr; reign of the Vakîl, Karûn Khân Land, and 'Alî Murâd Khân Land; reign of Bâqer Khân Dehqân Khurâskânî Isfahânî—who only occupied the throne for a few days—continuation of the Land dynasty under Ja'fer Khân and Lutf 'Alî Khân to the reign of Âqâ Muhammed Khân Qâjâr.

Following the above are two imitations of well-known works, *viz.* گلشن in imitation of Sa'di's *Bôstân*; and دلگشا, a *masnavî* in imitation and in the metre of Jelâl-ud-Dîn ar-Rûmî's *masnavî*.

Besides the above Sayyid Hâshim is the author of the following:—جلوس نامه خاقان which is a metrical record of the victory gained by Fath 'Alî Shâh over Sâdiq Khân Shaqâqî.

بشارت نامه a prose relation of the march of Âqâ Muhammed Khân on Isfahân.

روح افزا a mystical poem (*masnavî*) on Love, in imitation of Mîrzâ Nâsir Hakîm Bâshî's *masnavî*.

مخزن الاسرار the name of a work purporting to be a prophetic forecast of events from A.H. 1212 to A.H. 2640, the year of the future Deluge.

صور الطغرا is the title of a collection of 1,500 despatches and letters written for Fath 'Alî Shâh and the Princes.

The قانون السلطنة contains the author's ideas of statesmanship and king-craft.

كنز الاحكام consists of astrological forecasts and horoscopes.

The author states that his fourteenth production was a wonderful *masnavî* of fifteen hundred distichs, which unfortunately had been half-eaten up by mice, and he regrets his inability to reconstruct it. Besides the above the Rustem-ul-Hukemâ is the author of sundry other productions of scarcely any literary value. His autograph *Dîvân* has passed through my hands. Its colophon bore the date A.H. 1248. In the conclusion of that work was a notice of a *masnavî* the author proposed writing in seven thousand distichs, which he intended to call بزم و رزم and which was to be in four different metres.

S. J. A. C.

A LIST OF WORKS PRINTED IN PERSIA IN THE ARMENIAN LANGUAGE.

All the following were issued from Presses which existed or exist at **Julfa,** the Armenian suburb of Isfahân. The dates vary from A.D. 1641 to 1887.

1641.—The Lives of Our Holy Fathers; printed in special type, on fine paper, in the time of the Archbishop Khachatour the First.

1642.—Prayer Book (same period).

1642.—Psalter; printed by Johannes Vartabed, disciple of Archbishop Khachatour the First, from a new press, with new characters.

1647.—Calendar; written by Simeon Vartabed, printed by Johannes Vartabed. A Bible was commenced, but remained incomplete.

1687.—The Armenian Dogma, and the introduction of schismatic ideas: printed in the time of the Archbishop Stephanos.

1687.—"The Book of Discussion;" an apology for the faith; by Alexander Vartabed: printed in the time of Archbishop Stephanos.

1688.—A *résumé* of arguments against those who believe in the dual nature of Christ; printed in the time of Stephanos.

The above is the only list I have been able to make of the earlier printed books. Since 1872 the following have been published:—

Alphabet; Spelling Book; An abridged Armenian History; A Catechism by Mesar; Elements of Armenian Grammar; History of the Holy Books; The Duties of a Christian; Description of Ceremonies; History of New Julfa, Vols. I. and II. Biography of the late Archbishop Thaddeus, with a poem on his death; Reader for children; Prayer Book; Biography of Mary Haronteun and her husband; Book of the Mass; Book of Assemblies; Copies of the first Bulls of Macar, the true Catholicos of Armenians; (now in the press) Evidences of Christianity.

Besides the above some Annual Calendars have been published since 1872; I believe to the number of 11 or 12.

I believe the above two lists are far from perfect, but so far they are all that I have been able to get.

SIDNEY J. A. CHURCHILL.

SANSKRIT AND OLD-KANARESE INSCRIPTIONS.

By J. F. FLEET, Bo.C.S., M.R.A.S., C.I.E.

(*Continued from Vol. XVI. p. 256.*)

No. 172.—KALAS-BUDRUKH PLATES OF BHILLAMA III.—SAKA-SAMVAT 948.

THIS inscription, which was first brought to notice by me in this Journal, Vol. XVI. p. 43ff., and is now published in full for the first time, is from some copper-plates that came to my notice in 1886. I edit it from the original plates, which I obtained, for examination, though the kindness of Mr. G. Waddington, Bo.C.S. They were found in a plot of land belonging to Gaṅgâdhar Trimbak Kuḷkarṇî,—in whose possession, I presume, they now are,—at the village of **Kalas-Budrûkh**,[1] about three miles east by south of Akôlêṁ,[2] the chief town of the Akôlêṁ Tâlukâ or Sub-Division of the **Aḥmadnagar District** in the Bombay Presidency.

The **plates**, of which the first and last are inscribed on one side only, are three in number, each measuring about 11$\frac{1}{8}$" by 7$\frac{3}{8}$". The edges of them were fashioned somewhat thicker than the inscribed surfaces, with corresponding depressions inside them, so as to serve as rims to protect the writing; and the inscription is in a state of very good preservation throughout. The plates are thick and substantial; and the letters, though fairly deep, do not shew through on the reverse sides of them at all. The engraving is fairly good; but, as usual, the interiors of some of the letters shew marks of the working of the engraver's tool. The plates are numbered; the first, just before the opening symbol of the inscription; the second, on the second side of it, just before the beginning of line 31; and the third, half-way down, opposite line 55. In the first plate, the ring-hole was first made at the top; but it was then filled in again, and a fresh hole was made at the bottom, according to the usual arrangement.—The plates are held together by a roughly circular **ring**, about $\frac{5}{16}$" thick, and and 2$\frac{5}{8}$" in diameter. It had not been cut when the grant came into my hands. The ends of the ring are secured in the thicker end of a pear-shaped mass of copper, about 2$\frac{5}{8}$" high and with a circumference of about 5$\frac{3}{4}$" at the largest part, in the upper half of which there is, in relief, a small **image**, about 1$\frac{1}{4}$" high, apparently of Garuḍa, squatting full-front, with his hands joined in front of his chest, and with a bird's head and beak. The image is too much worn, to be reproduced with the lithograph of the plates.—The **weight** of the three plates is 333$\frac{3}{4}$ tolas, and of the ring and image, 41$\frac{3}{8}$ tolas; total, 375$\frac{1}{8}$ tolas.—The average **size of the letters** is about $\frac{5}{16}$". The **characters** are those of the South-Indian Nâgarî alphabet of the period. The **decimal signs** for 1, 2, 3, 4, 8, and 9, occur in the numbering of the plates, and in the date, in line 15.—The **language** is Sanskrit throughout. Except for the opening words *Ôṁ Ôṁ namaḥ Sarvajñâya*, the inscription is in verse as far as line 14. From there, to the end, the formal part of it is in prose; with the introduction of some of the usual benedictive and imprecatory verses in lines 22 to 27, 48 to 53, 55 to 59, and 60-61; and with a final verse in line 61-62, recording the name of the writer of the charter.—In respect of **orthography**, we have to notice—(1) the general use of the *anusvâra*, instead of the proper nasal, *e.g.* in *âṁyâs*, line 1; *chaṁdra*, line 2; *diśaṁtu*, line 2-3; *paṁcha*, line 16; *maṇaṁvâ*, line 46; though the proper nasal occurs in *sâmanta*, line 10; *daṇḍanaśchandra*, line 12; *âsphôṭayanti*, line 21; *maṇamvâ*, line 36; and other places;—(2) the use of *v* for *b*, throughout, *e.g.* in *śavda*, line 16; *pravala*, line 19; and *vrâhmaṇaiḥ*, line 39;—and (3) an occasional use of *s* for *ś*, *e.g.* in *saurya*, line 8; *sâśvata*, line 20; and *parâsara*, line 28.

The **inscription** opens with an invocation of the god Śiva under the name of Sarvajña (line 1), followed by a verse in praise of Brahman, Vishṇu, and Śiva, under the names of Hiraṇyagarbha (l. 2), Achyuta, and Chandramauli. It then relates that, **in the lineage of Yadu** (l. 3), there was born a 'king' named **Sêuṇachandra.** His son was

---

[1] Indian Atlas, Sheet No. 38. Lat. 19° 32' N.; Long. 74° 9' E.

[2] The 'Akola' and 'Ankola' of maps, &c.

Dhâḍiyappa (l. 5). His son was **Bhillama I.** His son was **Râja** (l. 6), or perhaps Śrîrâja. His son was **Vaddiga** (l. 7). And his son was **Bhillama II.** (l. 8); whose wife was **Lakshmî** (l. 9),[3] "who illumined the **Yâdava and Râshṭrakûṭa families.**" Their son was **Vêsû** (l. 10), "a very jewel of a *Sâmanta*." And his son was **Bhillama III.** (l. 12), whose capital was **Sindînagara** (l. 13).

The inscription then records (l. 48) that, in Śaka-Saṁvat 948, the Krôdhana *saṁvatsara*, the *Mahâsâmanta* **Bhillama III.,**—who had attained the *pañchamahâśabda* (l. 16); who was born in the Vishṇuvaṁśa or lineage of Vishṇu (l. 17); and who had the *biruda* of Yâdava-Nârâyaṇa,—bearing in mind the precepts (l. 18-27) of Parâśara (l. 28), Daksha, Kutsa, Âṅgirasa, Gôtama, Manu, Yâjñavalkya, and other great sages,—having bathed in the river **Dêvanadî** (l. 32), which adorned the city of **Sindînagara** (l. 29-30) just as the Mandâkinî or heavenly Ganges adorns Amarâvatî or the city of the immortals,—having offered a libation to the *pitṛis*, or manes of his deceased ancestors (l. 33); having presented an *argha*-offering of water, mixed with red water-lilies, to the Sun (l. 34); having done worship to the god Śambhu; and having duly performed the rites of a *hôma*-sacrifice,—poured water (l. 39) into the hands of the *Mahâpradhâna* Maṇamvanâyaka (l. 38), the great-grandson of Śrîbhaṭṭa who came originally from the *bhaṭṭa*-village of **Ṭakkârikâ** in the **Madhyadêśa** or Middle Country (l. 35) and belonged to the Mâdhyandina *śâkhâ* and the Bhâradvâja *gôtra*, and into the hands of twenty-five other Brâhmaṇs (l. 39) who resembled him in merit, but whose names are not given, and presented to them the village of **Kalasa** (l. 15), which was bounded on the east by the village of **Saṁgamikâ** (l. 39), on the south, by the village of **Tâmraprastara** (l. 40), on the west, by the village of **Thûha,** and on the north, by the river **Payôdharâ** (l. 41). The terms and conditions of the grant are detailed in lines 41 to 45. Lines 45 to 61 contain an order that no obstacle shall be raised to the enjoyment of the grant by Maṇam va and the other Brâhmaṇs; followed by the customary benedictive and imprecatory verses and precepts. And the concluding verse, in lines 61-62, records that the charter was written, at the command of Bhillama III., by Harichandra, the son of Rudrapaṇḍita.

Of the **places** mentioned in this inscription, **Sindînagara,** the capital of the family, is evidently identical with the **Sindinêra**[4] mentioned in line 6 of the inscription of Sêuṇachandra II., of Śaka-Saṁvat 991, *ante*, Vol. XII. p. 119ff. **Sindinêra** has been identified by Dr. Bhagwanlal Indraji[5] with the modern **Sinnar,**[6] the chief town of the Sinnar **Tâlukâ** or Sub-Division of the Nâsik District. And this identification is fully borne out by the record in the present inscription that Sindînagara was adorned by the river **Dêvanadî. Dêv,** *i.e.* **Dêvanadî,** is the name of a small river or stream which unites with the Śiv, *i.e.* Śivanadî, close below the town of **Sinnar;**[7] the two together, under the name of Dêvanadî, flow on and join the Godâvarî about five miles south-east of Nândûr-Madhmêśwar, passing on the way a large village named Dêvapur. **Kalaśa,** the village granted, is the modern **Kalas-Budrûkh,**[8] three miles east by south of Akôlêṁ, and about twenty-one miles south by east of Sinnar. **Saṁgamikâ,** which bounded it on the east, is evidently the modern **Saṁgamnêr,** —through the form Saṁgamanagara,—the chief town of the Saṁgamnêr Talukâ in the

---

[3] In line 9 of the Bassein grant of Śaka-Saṁvat 991, published by Dr. Bhagwanlal Indraji, *ante*, Vol. XII. p. [illegible], her name is given in the Prâkrit form of Lachchhiyavvâ, and she is said to be the daughter of Jhañjha, and to belong to the Râshṭrakûṭa lineage.

[4] It is perhaps also mentioned as S[illegible] in lines 30 and 32 of the same inscription. The published version gives 'S[illegible]' in line 30, and in line 32 'Sêusigrama' in the text, and 'S[illegible]' in the translation.—Other instances of the corruption of the Sanskrit *nagara* into the Prâkrit [illegible] are [illegible] by Amalner, Jamner, Ner, Pimpalner, and Thalner in the Khândêsh District; Parner and S[illegible] in the Ahmadnagar District; and S[illegible] in the Poona District. A similar corruption of [illegible] into [illegible] is found in the name of Ajaner in the Nâsik District. And 'Nonere,' in the Nâsik District, about twenty-three miles west of Malegaum, seems to represent either Non[illegible] or Noneri (*nava-nagara*).

[5] *ante*, Vol. XII. p. 124.

[6] The 'Sinnur' of the Indian Atlas, Sheet No. 38. Lat. 19° 50′ N., Long. 74° 3′ E.—With the further corruption here of [illegible] into [illegible], we may compare the name of Junnar in the Poona District.—A note in the *Bombay Gazetteer*, Vol. XVI. Nâsik, p. 618, tells us that "Sinnar is almost invariably called Sindar by the peasantry."

[7] *Bombay Gazetteer*, Vol. XVI. Nâsik, p. 618; see also p. [illegible]

[8] *i.e.* the larger, senior, elder, or original Kalas, as opposed to Kalas-Khurd just on the north of it on the other side of the river Pravara.

Aḥmadnagar District. The village of **Tâmraprastara,** which bounded it on the south, has now disappeared. **Thûha,** which bounded it on the west, is the modern **Thûgaum-Budrûkh,** two miles to the west by north. **Payôdharâ,** the river which bounded it on the north, must be the old original name of the modern **Pravarâ,** which flows by just to the north of Kalas-Budrûkh, and joins the Mahâluṅgi or Mâluṅgi at Saṁgamnêr.

The full **details of the date,** which, in line 14f., is recorded both in words and in decimal figures, are, by literal translation,—"in nine centuries, increased by forty-eight, of the years that have gone by from the time of the Saka king; or, in figures 948; **on the occurrence of an eclipse of the sun** in (the month) Kârttika (October-November) of the **Krôdhana saṁvatsara.**" The *saṁvatsara* in question is one of the years of the Sixty-Year Cycle of Jupiter. And, by the Southern System of this cycle, the Krôdhana *saṁvatsara*, current, was identical with Śaka-Saṁvat 947 expired, and 948 current. With the basis of Śaka-Saṁvat 947 expired, and according to the *Amânta* southern arrangement of the lunar fortnights, I find, from Prof. K. L. Chhatre's Tables, that the given *tithi*, *viz.* the new-moon *tithi* of the month Kârttika of Saka-Saṁvat 948 current, ended on Tuesday, **the 23rd November, A.D. 1025, when**[9] **there was an eclipse of the sun;** and, as the *tithi* ended, approximately, at 4 *ghaṭis*, 40 *palas*, or 1 hour, 52 minutes, after mean sunrise at Bombay, there would be nothing in the time to prevent the eclipse being visible at Bombay and to the east of it. By the Northern System of the cycle, the Krôdhana *saṁvatsara* was current, according to the Tables, at the commencement of Saka-Saṁvat 946 current (A.D. 1023-24); and, from some Tables and rules drawn up by Mr. Sh. B. Dikshit, I find that it commenced on Thursday, the 22nd November, A.D. 1022, and was followed by the Kshaya *saṁvatsara* on Monday, the 18th November, A.D. 1023. But there was no eclipse of the sun, on the given *tithi*, in this period; nor after it, before the 23rd November, A.D. 1025. It is evident, therefore, that in this record we are concerned with **the Southern System of the Sixty-Year Cycle;** and, since the English equivalent of the given *tithi* of the *Pûrṇimânta* northern Kârttika would be about a month earlier, when there was no solar eclipse, with the **Amânta southern arrangement of the lunar fortnights.** Also, unless we choose to assume a mistake in the number of the given year, in deliberately writing the year 948 instead of 947, in words as well as in figures,—which assumption is quite unnecessary, since, even to the present day, in some parts of Southern India the reckoning of the Śaka era is the system of current years.[10]—this record furnishes **a clear instance of the quotation of a current Saka year.** It is true that an eclipse of the sun occurred again on Saturday, the 12th November, A. D. 1026, which answers, again in accordance with the *Amânta* southern reckoning, to the same *tithi* of Śaka-Saṁvat 949 current, or 948 expired. But the chief guide as to the period in which we have to find the eclipse, is given by the name of the *saṁvatsara*; and, as I have said, the Krôdhana *saṁvatsara*, by the Southern System,[11] was Śaka-Saṁvat 947 expired, and 948 current, equivalent to A.D. 1025-26 current. If we were to accept the eclipse of the 12th November, A.D. 1026, which would be the correct one for Saka-Saṁvat 948 as an expired year, we should have, either to understand that the Krôdhana *saṁvatsara* also is intended to be taken as expired, which would be, to say the least, an absurd way of quoting it; or else to correct the name of the *saṁvatsara* from Krôdhana into Kshaya, which is in itself hardly justifiable, and is in fact wholly unnecessary, because, as we have seen, a suitable eclipse of the sun did occur, on the given *tithi*, in the Krôdhana *saṁvatsara*. It is also true that the word *atîta* occurs in the compound *Saka-nṛipa-kâl-âtîta-saṁvatsara-satêshu*; and that it is not always easy to decide whether the use of it in this and similar compounds does, or does not, qualify the exact number of the year. In some cases, indeed, unless we assume the omission of a separate word meaning "having expired," it would seem that the use of it in the compound really is intended to mark the exact given year as an expired year. But the word

[9] See *Indian Eras*, p. 214.

[10] See a "Note on the Epoch of the Saka Era," which will appear shortly in this Journal.

[11] See *Indian Eras*, p. 171, and Patell's *Chronology*, p. 138.

gatêshu sometimes occurs, as a separate word, in addition to *atîta* in the compound; *e.g.* in the Kauṭhêṁ grant of Vikramâditya V., where we have (*ante*, Vol. XVI. p. 24, line 61f.)—Śaka-nṛipa-kâl-âtîta-saṁvatsara-śatêshu navasu triṁśad-adhikêshu gatêshu 930 pravartamâna-Saumya-saṁvatsarê, &c. The Saumya *saṁvatsara* of that record really was, by the Southern System, Śaka-Saṁvat 930 expired, and 931 current. In the present case, the separate word *gatêshu*, or any equivalent of it, does not occur. And there is nothing to prevent our understanding that *atîta*, in the compound, qualifies only in a general way the years of the era; and does not give a definite meaning of expired years to the exact year that is indicated,

TEXT.[12]

First Plate.

1 Ôm[13] Ôṁ Namaḥ Sarvvajñâya ॥ Sanâtan[14]-âṁgâs=tridaś-ânat-âṁhrayô Hiraṇya garbh-Âchyuta-
2 Chaṁdramô(mau)layaḥ ॥(।) utpatti-rakshâ-pralay-aika-hêtavô niḥśêsha-viśvasya-**śivaṁ** diśaṁ-
3 tu vaḥ ॥ Śrîmân[15]=asti samasta-viśva-mahitaḥ śrêyân=**Yadôr=anvayas**=tasmin=**Sêuṇa-**
4 **chaṁdra** ity=anupamô jâtaḥ pratâpî nṛipaḥ । tasmât=sûnur=anûna-kîrttir=ajani śrî-
5 **Dhâḍiyapp-**âhvayô vidhvast-âhita-saṁhatir=nnarapatir=jjâtas=tatô **Bhillamaḥ** ।(॥) Tasmâ-
6 d[16]=abhûd=bhûri-guṇ-ânavadyaḥ śrî-**Râja-**nâmâ naradêva-vaṁdyaḥ । jâtas=tataḥ sûnur=arâti-tû-
7 la-dâvânalô **Vaddiga-**bhûmipálaḥ ॥ Tasmâd=[17]dugdha-mahârṇṇavâd=iva śaśî viśvaṁ sa-
8 mudbhâsayan=sîmâ sau(śau)rya-rasasya **Bhillama-**nṛipaḥ saṁgrâma-Râmô=bhavat ॥(। tasy=âsîj=ja-
9 gad-archchanîya-charitâ **Lakshmîr**=mmanaḥ-prêyasî । yâ śrî-**Yâdava-Râshṭrakûṭa-**kulayôr=jjâ-
10 tâ samudyôtinî ॥ **Vêsû**[18]-nâm=ânupama-mahimâ tasya sâmanta-ratnaṁ dharmmî dhîmân=sama-
11 jani sutô **Bhillamasy**=âtha tasyâṁ । tasy=âpy=âsîd=asama-sukṛitô vikramî nyak-kṛit-âri-
12 ḥ putraḥ pâtraṁ viśada-yaśasô nîtimân=**Bhillam-**âkhyaḥ ॥ Ânandanaś[19]=chandra iva prajânâṁ
13 yaś=cha pratâpî savit=i(ê)va rêjê ॥(।) tasya prasiddhâ bhuvi râjadhânî vibhât **Si[ṁ*]dinagar-**âsidhanô[20] ॥
14 ॥[21] ॥ Atha । **Śaka-nṛipa-kâl-âtîta-saṁvatsara-śatêshu navasv=ashṭâchatvâri-[ṁ*]śad-adhik[ê*]shv=aṁka-**
15 **tô=pi ॥ 948 ॥ Krôdhana - saṁvatsara[22] - Kârttika - saṁjât - âdityagrahaṇê**

Second Plate; First Side.

16 Samadhigatapaṁchamahâśavda(bda)mahâsâmaṁt-aikaśaṁkhadhvanivavirita[23]bhuvanâṁtarâla-
17 śrîVishṇuvaṁśaprasûta - YâdavaNârâyaṇ - âdi - râjâvalî - virâjita - **śrî - Bhillama - râ-**
18 jaḥ ॥ Asâratâṁ saṁsârasya । asthiratâṁ yauvanasya । kshaṇikatâṁ vibhavasya । visha-visha-
19 matâṁ vishaya-sukhasya । prava(ba)la-pavana-vaśa-chalita-taru-śikhara-gata-pariṇata-pha-

---

[12] From the original plates.
[13] This Ôṁ is represented by a symbol; the repetition of it is in ordinary writing.
[14] Metre, Ślôka (Anushṭubh).
[15] Metre, Śârdûlavikrîḍita.
[16] Metre, Indravajrâ.
[17] Metre, Śârdûlavikrîḍita.
[18] Metre, Mandâkrântâ.
[19] Metre, Upajâti of Indravajrâ and Upêndravajrâ.
[20] [illegible]
[21] Between this mark of punctuation and the following, there stands a circle divided into four parts by two lines crossing each other at right angles in the centre.—The same symbol, but with a *mâtrâ* above it, occurs in line 62, at the end of the whole inscription; and a somewhat similar one in line 61.—A symbol of the same kind, in a Gwalior inscription, has been reproduced, *ante*, Vol. XV p. 202
[22] The *ra* was first engraved between the *tsa* and the ring-hole, and then, not being satisfactory, was repeated.
[23] Read *badhirita*

i

2

4

6

8

10

12

14

iia

16

18

20

22

24

26

28

30

W. GRIGGS, PHOTO-LITH.

iib

32

34

36

38

40

42

44

iii

46

48

50

52

54

56

58

60

62

20 la-van=niśchita-patanatàṁ jîvitasya ch=âkalayya kêvalaṁ dharmma êva sâ(śâ)śvata-śarmmaṇê

21 saṁpadyata iti niyatam=avadhârya cha । tathà Kṛita-Trêtâ-Dvàparêbhyaḥ Kalau dànam=êva pra-

22 śaṁsanti munayaḥ ॥ Na[24] tathà sa-phalâ vidyâ na tathâ saphalaṁ dhanaṁ । yathâ tu munayaḥ prâ-

23 hur=ddânam=êkaṁ Kalau yugê ॥ Agnêr[25]=apatyaṁ prathamaṁ suvarṇṇaṁ bhûr=Vvaishṇavî sûrya-sutâś=cha gâvaḥ

24 lôka-trayaṁ têna bhavêt=pradattaṁ yaḥ kàṁchanaṁ gàṁ cha mahîṁ cha dadyât ॥ Âsphôṭayanti[26] pita-

25 rô valgaṁti cha pitâmahâḥ । bhûmi-dô=smat-kulê jâtaḥ sa naḥ saṁtârayishyati ॥ Bhûmi-dâ-

26 naṁ su-pàtrêshu su-tîrthêshu su-parvvasu । agâdh-âpâra-saṁsâra-sâgar-ôttaraṇaṁ bhavêta(t) ॥

27 Dhavalâny=âtapatrâṇi daṁtinaś=cha mad-ôddhatâḥ । bhûmi-dânasya pushpâṇi phalaṁ svarggê Purandaraḥ[27] ॥

28 Ity-âdîni Parâsa(śa)ra-Daksha-Kuts-Âṁg irasa-Gôtama-Manu-Yàjñavalkya-prabhṛiti-mahâmuni-vacha-

29 nâni samyag-avagamya mâtâpitrôr=âtmanaś=cha sakala-nija-vaṁśasya cha śrêyasê śrî-**Si-**[28]

30 **ndînagar** - Âmarâvatî - vibhûshâyâm = Airâvaṇ - ànukàri - vàraṇa - kaṭasthala - galita-

Second Plate; Second Side.

31 mada-gaṁdha-vâsitâyâṁ narêṁdra-vṛindàraka-dêv-ârchchan-ô chita-vikacha-ràjîva-rêṇu-râ-

32 jî-ràjita-puṇya-puṁjàyita-jalàyâṁ prathita-sutîrthâyàṁ Mandàkinyâm=iva **Dêvanadyâṁ**

33 kṛita-yathâvidhê(dhi)-snânô vihita-pitṛi-tarppaṇô rakta-kamala-miśrêṇa vâriṇà datv=ârgha-

34 m=âdityâya bhakty=âbhipûjya Śaṁbhuṁ pravihita-hôma-kâryaḥ su-kṛitibhiḥ pradhâna-purushaiḥ pa-

35 rivṛitô gṛihîta-gurujan-ânujñaḥ śrî-**Madhyadês-**âṁtaḥpàti-**Ṭakkârikâ**bhaṭṭagrâma-vinirgga-

36 ta-Màdhyandinaśàkha-Bhâradvâjagôtra-Śrîbhaṭṭâbhidhàna-vipravara-praṇaptrê śrî-Padmanâbha-

37 naptrê śrî-Śrîvatsanâyaka-sutàya svâdhyàya-snâna-dàna-paṁchabhûtayajñ-âdi-gṛihastha-dharmm-ânu-

38 shṭhâna-ratâya mahâpradhâna-pada-virâjitâya śrî-Maṇamv-âbhidhâna-nàyakâya tad-guṇaiḥ pa[ṁ*]-

39 cha-viṁśatibhiḥ su-vrà(brâ)hmaṇaiḥ saha parama-bhaktyâ hast-ôdakaṁ kṛitvâ pûrvvabhàga-gata-**Saṁgamikâ-**

40 gràmaṁ dakshiṇabhàga-gata-**Tàṁvra**[29]**prastara-**grâmaṁ paśchimabhâga-gata-**Thûha-**grâmam=uttarabhaga-stha-

41 **Payôdharâ-**nadîkaṁ chatur-àghâṭ-ôpalakshitaṁ s-ôdraṁgaṁ s-[ô*]parikaraṁ sa-sîmà-paryaṁtaṁ sa-vṛiksha-mâ-

42 là-kulaṁ sa-tṛiṇa-kâshṭhaṁ sa-prabhṛitik-ànuka-vishay-âśrayaṁ sarid-vâpî-kûpa-kûpikâ-taḍâga-

43 dîrghikà-jalasthala-khany-âkara-mṛid-vanaushadhi-pràsàda-gôpur-ôpêtaṁ sarvv-âyasthàna-sahitaṁ

44 namasyam=a-kara-vât-ôttaraṁ putra-pautr-àdy-anvay-ôpabhôgyam=a-chàṭa-bhaṭa-pravêśaṁ pûrvvadatta-dvija-

45 dâya-dêvadâya-varjjaṁ vasad-bhôjya-vṛittiṁ **Kalaśa-**nâmânaṁ grâmaṁ pradadau ॥ Tad=êshàṁ

---

[24] Metre, Ślôka (Anushṭubh)

[25] Metre, Indravajrà.

[26] Metre, Ślôka (Anushṭubh); and in the next two verses.

[27] Read *purandara*.

[28] These two syllables, *śrîsi*, probably owe their coarse and blurred shape to some latent fault in the copper.

[29] Read *tâmra*.

Third Plate.

46 Manamv-âdi-vrâ(brâ)hmaṇânâṁ s-ânvaya-va(ba)ṁdhûnâṁ svaya[ṁ*]-bhujânânâṁ bhôjayatâṁ vâ krishatâṁ

47 karshayatâṁ vâ yath-êshṭaṁ pratidiśatâṁ[30] pratidêśayatâṁ vâ kên=api paripaṁthanâ

48 na karttavyâ ‖ Yata uktaṁ mahâ-munibhiḥ ‖(‖) Yan[31]=îha dattâni purâ narêndrair=ddânâni dharmm-â-

49 rtha-yaśas-karâṇi | nirmâlya-tulyâni bhavaṁti tâni kô nâma datvâ punar=âdadîta ‖ Va(ba)-

50 hubhi[r*][32]=vvasudhâ bhuktâ ga(râ)jabhiḥ Sagar-âdibhiḥ | yasya yasya yadâ bhûmis=tasya tasya tadâ

51 phalaṁ ‖ Sadyô-dânaṁ nirâyâsaṁ s-âyâsaṁ tasya pâlanaṁ | êvaṁ tu munayaḥ prâhur=ddânât=tat-pâla-

52 nam varaṁ ‖ Sarvvân[33]=êtân=bhâvinaḥ pârthivêṁdrân=bhûyô-bhûyô yâchatê Râmadêvaḥ | sâmânyô=yaṁ dharmma-sê-

53 tur=nṛipâṇâṁ kâlê-kâlê pâlanîyô bhavadbhiḥ ‖ Ity=arthitô=pi Kali-kâla-vasâ(śâ)l=lôbh-âbhi-

54 bhûtô yaḥ pûrvva-dân-âpahâraṁ karôti sa paṁcha-mahâpâtakair=upapâtakaiś=cha lipyatê ‖

55 Sva[34]-dattâṁ para-dattâṁ vâ yô harêta vasuṁdharâṁ | shashṭi-varsha-sahasrâṇi vishṭhâyâṁ jâyatê krimiḥ ‖

56 Viṁdhy-âṭavîshv=atôyâsu śushka-kôṭara-vâsinaḥ | mah-âhayô hi jâyaṁtê bhûmi-dânapa-

57 hâriṇaḥ ‖ Satyaṁ yajña-hutaṁ ch=aiva yaḥ kaśchid=dharmma-saṁchayaḥ | arddh-âṁguléna sîmâyâṁ haraṇê-

58 na praṇaśyati | (‖) Aśva-m[ê*]dha-sahaśrê(srê)ṇa vâjapêya-śatêna [cha*] | gavâṁ kôti-pradânêna bhûmi-ha-

59 rttâ na su(śu)dhyati ‖ Iti muni-vachanâni matvâ bhâvibhir=nṛipatibhir=ddharma[35]-lôbha eva karttavyaḥ ‖ Punar=api śrî-

60 Bhillama-râjaḥ prârthayati ‖ Chha[36] ‖ Mad[37]-vaṁśa-jâ vâ para-vaṁśa-jâ vâ yê puṇyavaṁtô mama dharmmam=ênaṁ | pra-

61 pâlayishyaṁti nṛipâḥ samagraṁ kṛit-âṁjaliḥ s-âdaram=asmi têshâm ‖[38] ‖ Vachanâd[39]=Bhillama-nṛipatêḥ sa(śa)-

62 sanam=iti Rudrapaṇḍita-sutêna | Harichaṁdra-nâma-vidushâ vrâ(brâ)hmaṇa-hita-hêtavê rachitaṁ ‖[40] ‖

THE VICISSITUDES OF THE BUDDHIST LITERATURE OF CEYLON.

BY THE REV T. FOULKES.

(*Continued from p.* 104).

Another noteworthy event of this period is the production of a medical work in the Sanskrit language by king Buddhadâsa, who reigned in the middle of the 4th century A.D.,[41] which was still extant when the *Mahâvaṁsa* was written. The special significance of this book

---

[30] This *anusvâra* is imperfect, and looks very much like an i attached to the *v* of *vriddh*[illegible] in the line above. [31] Metre Indravajrâ.

[32] Metre, Śloka (Anushṭubh), and in the next verse.

[33] Metre, Śâlinî.

[34] Metre, Śloka (Anushṭubh), and in the next three verses.

[35] This *rma* was at first omitted, and was then inserted above the line, below the *ja* of [illegible] in the line above, with a cross-mark over the place to which it belongs.

[36] Or *chha* [illegible] the same sign in these characters represents both letters. It may stand for *chhan*, 'cutting, dividing, a part, a fragment;' or for *than*, 'preserving, preservation; auspiciousness: a prayer for the welfare of another.'

[37] Metre, Upajâti of Indravajrâ and Upendravajrâ.

[38] Between this mark of punctuation and the following there stands a circle divided in half by a line passing vertically through the centre.

[39] Metre, Âryâ.

[40] See note 21 above.

[41] A.D. 339 to 368. Turnour, 245; Introd., p. lxii. The record of this work is confined to the Turnour *Mahâvaṁsa*.

is, that its royal author, living at a time when, with this single exception, the existence of Sanskrit books in Ceylon is not mentioned by the native authorities, should have chosen this language for a book whose practical subject shows that he wrote it for more or less public use. It affords reason for the conclusion that, whether known or unknown to the chroniclers, the Sanskrit language was cultivated in Ceylon at this time, and that books written in that language were sufficiently well-known there in the 4th century A.D.

Both recensions of the *Mahâvaṁsa* attribute to this king's reign translations of some unmentioned portions of the sacred books of Buddhism into the vernacular Sinhalese language.[47] The Upham recension adds that these translations were made from Pâli texts; but the Turnour recension and the *Râjaratnâkari*[48] do not uphold this latter statement; and, if Buddhaghôsha's Pâli texts were the earliest appearance of books in that language in Ceylon, that statement cannot be accepted. The *Râjâvali* does not mention these translations; but it states[49] that this king provided books and preachers for the villages in his dominions.

We have now reached a very interesting epoch in the history of this literature, namely, the visits of the Chinese Buddhist pilgrim **Fâ-Hian** and the famous Pâli scholar **Buddhaghôsha.** Fa-Hian went to Ceylon in A.D. 411 by the sea-route, from the mouth of the Ganges, and spent two years in the island.[50] He had come to India from China by the long land-route to the north of the Himâlayas, in order to search for an authentic copy of the *Vinaya*, one of the three great divisions of the Buddhist canonical scriptures;[51] and although he had visited many monasteries in his route, he had been unsuccessful in his search until, after five years' wanderings, he reached Pâtaliputra, the modern Pâtna, the home of the great Asôka and his missionary son Mahinda, where he found in one of its monasteries a venerable copy of that work in the Sanskrit language, which had originally belonged to Buddha's own famous Jêtavana monastery at Śrâvastî.[52] He remained three years at this place studying the Sanskrit language, reading Sanskrit books, and copying this great work and other Buddhist books in the same language which he found there. He subsequently spent two years at Tâmraliptî, copying similar books and sketching Buddhist images, and he then embarked for Ceylon.[53]

It is important to remark here that the very ancient copy of the **Vinaya**, which Fa-Hian found in the capital of the Magadha country—the supposed home of the Pâli language, "the speech of Magadha," and the alleged vernacular of Buddha's own discourses—was written **in the Sanskrit language,** as were also the other Buddhist scriptures which he found there. It is equally clear that such imperfect portions of the *Vinaya* as had reached China before Fa-Hian started on this journey were also written in that language,[54] and the books which he subsequently copied in Tâmraliptî and Ceylon were in the same language; all of which he "edited" on his return home, with the assistance of the Chinese Sanskrit scholars of Nankin.[55] All this may not be absolutely decisive of the question of the original language of the Buddhist canonical scriptures: but it has considerable importance in the investigation of that question, especially as no equally trustworthy evidence has yet been discovered of the existence of any portion of the Buddhist canon in the Pâli language as early as this period.[56]

It is also worth while pausing to remark that Fa-Hian found the teachers of the Buddhist monasteries of Mongolia, Afghânistân, the Pañjâb, and North-Western India, as far down as Pâtaliputra, teaching their pupils the standard works of their religion by word of mouth;[57] although it was from these same countries that the books which they so taught

[47] Upham, I. 238: Turnour, 217

[48] Upham II. 129.

[49] *Ib.* II. 241.

[50] *Fa-Hian's Travels*, Chap. XXXII By means of these general references to the chapters of Fa Hian's book the reader will be able to consult any one of the versions which may be most convenient to himself.

[51] *Fa-Hian*, chap. XXXVI.

[52] *Fa-Hian*, chap. XXXVI.

[53] *Fa-Hian*, chap. XXXVII

[54] For illustrations of Fa-Hian's statements on this subject, see the Rev. Samuel Beal's Introduction to his translations of the works of this Chinese traveller and of Hiuen Tsiang; and also Dr. Edkins' *Chinese Buddhism*, p. 401 ff.

[55] *Fa-Hian*, chap. XL.

[56] The supposition that Pâli books existed in China, which originated in an error of Gutzlaff (*Sketch of Chinese History*, I. 250, and another work quoted in Fortune's *Wanderings*, p. 160), may now be regarded as exploded [See Medhurst's *China, its State and Prospects*, p. 206, and Edkins *op. cit. sup.* p. 402]. It seems also high time to discard the idea that the Pâli of the Southern Buddhists was at any time the spoken language of Magadha.

[57] *Fa-Hian*, chap. XXXVI.

had been brought to China during the previous four centuries, and copies of them were still in existence in Pâtaliputra, Tâmraliptî and Ceylon at this very time. This circumstance affords to my mind a sufficient solution of the Sinhalese paradox of the exclusively oral transmission of these books down to the 1st century B C. The kind of oral teaching which Fa-Hian had himself passed through in his youth in China,[58] and which he now found in use amongst the northern Buddhists, while the books were there also, may be accepted as the practice which we still find in all indigenous Hindu schools, and which has existed in them at all times; but at no time did this kind of teaching necessarily presuppose the contemporaneous or previous non-existence of the books which were so taught.

Fa-Hian made some important additions to his previous literary acquisitions during the two years which he spent in Ceylon,[59] and he expressly states that the books which he found there were written in the Sanskrit language, and that these books were large portions of the *Tripiṭaka.* Moreover, though the argument from silence is not to be pressed beyond its value, he does not appear to have seen any books there in the Pâli or any other language but Sanskrit.

The visit of **Buddhaghôsha** followed soon after that of Fa-Hian, according to the date which is commonly assigned to him. Various dates, however, have been given to him, ranging from B.C. 307 to A.D. 607. All the details also in the descriptions of his visit differ largely in the different authorities respecting the place from whence he came and the country to which he returned, what his connections were during his stay, and what his object and motive for going to Ceylon, whether he enriched the existing literature of the island by additions which he brought with him, or borrowed from its books to enrich the literature of his own country, or wrote original works of his own. The account which has been commonly received of him is that which is given of him in Turnour's recension of the *Mahâvaṁsa.* This account, however, not only stands alone and unsupported, and differs materially from the statements of the other authorities, but its elaborate details strongly suggest that it is the interpolated work of some later commentator rather than the original words of the continuator of the *Mahâvaṁsa.* To enter fully into these conflicting statements would occupy too much space here, but that which arises out of the spirit of the whole of the traditions regarding him is the predominating circumstance of his intimate connection with the traditions of the Pâli language.

He appears also to have been the first to present the Buddhist canonical scriptures in the Pâli dress in which they have since his time been preserved by the Southern Buddhist nations. The Turnour *Mahâvaṁsa* makes his work to be a translation of these scriptures into Pâli, from a version made into Sinhalese by the royal monk Mahinda in the 3rd century B.C.: but this statement[60] does great violence to the whole current of the other more consistent traditions. We shall not be in error probably in supposing the books which he found in Ceylon to be the very same, or similar, Sanskrit books as Fa-Hian had seen there so recently before, and that Buddhaghôsha's special work, apart from his original compositions, consisted in transliterating the *Tripiṭaka* and its commentaries out of the Sanskrit language into the more amenable form of the Pâli Prâkrit, and so adapting them for popular use. The practical service which he would thus have rendered to all future generations of his co-religionists would be amply sufficient to secure for him the high position which he has ever since continued to occupy in their traditions as one of their foremost literary benefactors.

Period III.

From the 5th to the 11th Century A.D.—Very little remains on record on the constructive side of the literature during this period. Soon after Buddhaghôsha's visit a succession of twelve irruptions of the Tamils of the opposite continent of India commences which form the special subject of the **Râjâvalı**, resulting, notwithstanding some alternating revivals, in the overthrow of the ancient monuments and monasteries of the island, and the

[58] He was able to recite the *S[illegible] Sûtra* from memory on the spot where Buddha had delivered it (*Fa-Hian*, chap. XXIX) before he learnt Sanskrit systematically at Pâtaliputra.

[59] *Fa-Hian*, chap XL

[60] See *ante*, p. 103

repeated suppression of Buddhism, and culminating in the dispersion of its monks and the complete destruction of its ancient literature.

After one of these catastrophes king **Dhâtusêna, A.D.** 459 to 477, inaugurated a restoration of the old religion by convening a council, after the example of Asôka, to settle anew the text of the canonical books.[61] He also caused the *Dîpavaṁsa* to be publicly read on the site of Mahinda's funeral pyre,[62] in order to stimulate the religious zeal of his people.

Towards the middle of the sixth century, the books of the **heretical Vaitulyas** were publicly burnt for the third time.[63] And then a long barren period succeeds down to the middle of the 9th century, which is only broken by the appearance of the **Laṅkâvistariyaye,** a Sinhalese work which Sir Emerson Tennent attributes to the 7th century,[64] and by the despatch of a Brâhmaṇ priest, in A D. 746, by the king of Ceylon, on an embassy to the emperor of China, bearing, together with other royal presents, a copy of the great **Prajñâ-sûtra.**[65]

The poet-king **Mutwâle-Sêna,** A.D. 838 to 858, explained the *Sûtra-piṭaka* in public,[66] according to the legend of the Upham *Mahâvaṁsa.* The *Râjaratnâkari,* however, from the traditions of a different school, states that this king, under the influence of a heterodox monk from India, was turned away from the orthodox creed, and "rejected and laid aside the precepts taught by the books and sermons of Buddha, and adopted the maxims of other systems of religion."[67]

His successor, **Kâśyapa IV.** or **Madisên-Sêna,** A.D. 858 to 891, did his best to counteract this evil. He "encouraged the priests of Buddha to re-establish their religion and to oppose the false religion throughout all his dominions, caused the coasts of the island to be diligently watched to prevent the approach of Buddha's enemies, and reigned as a good king; but, notwithstanding all this precaution, it was only like enclosing a field of corn after driving oxen into the same to eat it up, for a number of unbelievers were already in the island."[68]

The end was not far off now. The *Mahâvaṁsa* states that at the close of this period the "religion" "was overthrown by the **Malabars** during the term of eighty-six years."[69] The *Râjaratnâkari*[70] similarly states that during the nineteen reigns which preceded that of **Mahalu-Vijayabâhu.** in **A.D.** 1071, "the Malabars kept up a continual war with the Ceylonese, and had filled by this time every city and village in the whole island," and that these Malabars, "as far as they did prevail, abolished the laws and religion of Budha."[71] So also the *Râjâvali*[72] states that they "vanquished Ceylon and subverted the religion of Budha."

Soon afterwards, in the reign of **Udaya II.,** A.D. 926 to 937, the open wickedness of this immoral sect attracted the attention of the king, who, after an examination of their books, "shut them all together in a house, with their books, and, setting fire to the same, burnt the whole to ashes."[73]

In the latter half of the 10th century the rich and learned king **Kâśyapa VI., A.D.** 954 to 964, caused the *Abhidharma-piṭaka* to be engraved on golden plates and adorned it with precious stones.[74]

Period IV.

From the 11th to the 13th century A.D.: king **Mahalu-Vijayabâhu,** A.D. 1071 to 1126, vanquished these Malabars, and "united the three kingdoms of Ceylon under the same banner;"[75] and he then set about the restoration of Buddhism. At this time "there were not five monks left" in Ceylon, or, as the *Râjâvali* more emphatically says, "the Malabars had completely extirpated the priests of Buddha, so that a yellow robe was no more to be found."[76]

He therefore sent large presents to the **king of Aramana,**[77] on the coast of Coromandel, and obtained from him a mission of twenty or twenty-nine monks, to confer ordina-

[61] Upham, I. 241 : II. 75 : Turnour, 256.
[62] Turnour, 257.
[63] Upham, I. 242 II. 61, 65, 77.
[64] Tennent's *Ceylon*, I. 494.
[65] *ibid.* I. 621, note 2.
[66] *ibid.* p. 249.
[67] Upham, II. 81, 82.
[68] Upham, II. 251.
[69] Upham, I. 253.
[70] Upham, II. 85.
[71] Upham, II. 84.
[72] Upham, II 251.
[73] Upham, II. 83.
[74] Upham, I 248.
[75] Upham, I. 252 : II. 85, 252.
[76] Upham, II 252
[77] Upham, I. 253 : II 85, 86, 252 : Davy's *Ceylon*, 301.

tion on the ministry of the revived church: and these foreign monks brought with them their books to form the nucleus of its new literature.

Sir Emerson Tennent guesses that this kingdom of Aramana may be a part of the Indo-Chinese Peninsula, probably between Arracan and Siam:[78] and Turnour[79] had already, without giving any authority, fixed it in Arracan; but the passages in the *Râjaratnâkari*,[80] the *Râjâvali*[81] and the *Mahâvaṁsa*,[82] in which it is mentioned, clearly locate it on the Coromandel coast: and, as it is not Pâṇḍya nor Chôḷa, the only part of that coast which remains is that which lies between Chôla and Kaliṅga, namely, the old dominions of the Pallavas.

It is possible that the following passage in General Fytche's *Burma*[83] may in some way be connected with this Ceylonese legend:—"In 1050 A.D. [which falls in the reign of **Mahala Vijayabâhu**] the Talaings were conquered by **Anauratâ**, the Burmese **king of Pagân**, who burnt and sacked Thatûn, and took away with him to Pagân the Buddhist scriptures brought by Buddhaghôsha, as also the most learned of the priesthood;" since, besides the coincidence of time, the name of this Burmese king corresponds with that of "the foreign king," **'Anoorudda,'** the friend of Vijayabahu, as given in the *Mahâvaṁsa* version of the tradition.[84]

His son **Parâkramabâhu**, A.D. 1153 to 1186, maintained this revival on the orthodox basis of the *Tripitaka*,[85] even in the midst of the excitement of rebellions, invasions and counter-invasions;[86] he provided two libraries in the palace which he erected for the head of the Mahâvîra monastery,[87] and restored a hundred and twenty-eight libraries elsewhere.[88] The **Abhidhânappadîpikâ**, a Pâli dictionary, was compiled in his reign.[89]

His queen, **Lîlâvatî**, was a Pâṇḍyan princess[90] and a patroness of learning; and during her triple reign, A.D. 1197, 1209 and 1211, she specially patronized the author of the *Dâṭhâvaṁsa*. This work is mentioned in the Turnour recension of the *Mahâvaṁsa*;[91] and, that being so, the date of this recension of the *Mahâvaṁsa* has to be brought down to some time later than the reign of queen Lîlâvatî in the 12th and 13th centuries, instead of standing in the 5th century A.D. as its commentator tried to persuade his readers. A commentary on the Sanskṛit grammar of Chandragâmi glosses on the *Samanta-pâsâdikâ* commentary on the *Vinaya* and on a commentary on the *Aṅguttara*, the *Vinaya-saṅgaha*, and other works in the Pâli and Sinhalese languages, were written in her reign,[92] which was a period of unusual literary activity, her Pâṇḍyan friends probably contributing their share of materials for it.

Paṇḍit Vijayachakka, A.D. 1186, was a learned prince and a Pâli scholar, and he composed poems in that language.[93] Hardy[94] doubtfully supposes this king to be the author of a commentary on Buddhaghôsha's *Visuddhimârga*, but his short reign precludes the supposition that he could have written a work of that magnitude while he occupied the throne. Perhaps it belongs to the reign of one of the other Vijayachakkas.

The new life which had thus been given to Ceylonese Buddhism was not destined to last much longer; a series of weak reigns, with a fresh series of invasions from the continent of India, followed rapidly upon each other from A.D. 1196 to 1255; and these invaders "began to destroy both the country and religion;" the monks were "hunted from place to place and had lost all their books by the Malabars:" and, to crown the destruction, the last of these invaders made the reigning king prisoner, put out his eyes, "and extirpated the established religion." The recently resuscitated literature of the island naturally fell in for its share of these calamities: and at length "all the books which had been written [from the time of Valagam Abhaya] had been from time to time destroyed by the Malabars," so that on

---

[78] Introd. p. xv. [79] *Ceylon*, I. 406, note.
[80] Upham, II. 86, 87. [81] *ib.* II. 147, 252, 254.
[82] Upham, I. 293. [83] Vol. II. 170.
[84] Upham, I. 253. [The intermediate reign of Vikramabâhu, A.D. 1127, is passed over lightly in the legends. His daughter is the heroine of the *Ratnâvali* (Wilson, *Hindu Theatre* II. 314.) Phayre, *History of Burma* p. 37 dates that Anaurathâ is said to have communicated with Ceylon direct, and that he invaded Arracan pp. 37, 46.—ED.]
[85] Upham, I. 271, 298: II. 86, 252.
[86] Upham, I. 280, 287, 292, 296, 298: II. 87, 253.
[87] Upham, I. 300. [88] Upham, I. 312.
[89] Turnour, Introd. p. xxxvii.
[90] *Journal, As. Soc. Beng.* VI. 258. Mutu Coomâra Swâmy's *Dâṭhâvaṁsa*, 24. Turnour (*loc. cit.*) sometimes confounds the Pâli *Dâṭhâvaṁsa* with the Sinhalese *Daḷadâvaṁsa*. [91] Turnour, 241.
[92] *Dâṭhâvaṁsa*, Introd. p. xix. 80.
[93] Upham, I. 313. [94] *Man. Bud.*, 512.

their recall "the priests for want of books to remind them of their duty had forgotten to know good from evil."[95]

Period V.

From the 13th century A.D. to the present time.—Kalinga Vijayachakka, A.D. 1235 to 1266, succeeded in rescuing Ceylon from these usurpers,[96] and he made great efforts to revise its old theology and to restore its lost literature.[97] He caused copies of the *Tripiṭaka* to be made at great expense, and placed one of them in every village throughout the island; he employed the more learned to teach the younger and more ignorant of his monks, and he sent to India for ten monks to confer ordination in his new church.[98] Thus a complete re-establishment of Buddhism was effected in his dominions after its complete extirpation in the preceding reigns. This new order was once more built upon a foreign basis, and its new literature, which may be regarded as the nucleus of all the present literature of the island, was in the first instance obtained from the Chôḷas of Southern India, who had by this time annexed the Pallava and Eastern Châlukya provinces on the coast to their original dominions in the basin of the Kâvêrî.

His valiant son, **Parâkramabâhu III.,** A.D. 1266 to 1301, maintained and greatly extended his father's work; he procured learned monks from the Chôḷa country to teach the *Tripiṭaka* to his people; he obtained books also from Southern India, and he settled a new local canon of the Buddhist scriptures.[99] Moreover, he himself taught his brother the orthodox doctrines of his religion, and caused him to teach them to the monks in his monasteries, and he still further popularized the revival by causing several portions of the scriptures to be translated into (apparently) the vernacular Sinhalese.[100] The **Pûjavalîya,** one of the Sinhalese historical authorities, was written in his reign,[101] so also was the continuation of the *Mahâvaṁsa* from the reign either of Mahâsêna or of Mahânâma down to the present reign,[102] and I do not see any reason to suppose that he did not, at the same time, at least recast the earlier portions of that work.

Bhuvanêkabâhu I., A.D. 1303 to 1314, made the contents of the *Tripiṭaka* still more widely known by multiplying copies of it and distributing them to all the monasteries of his kingdom,[103] and another legend[104] states that the copies which he so multiplied were of two only of the three *Piṭakas*, while a third legend[105] confines them to the *Sûtrapiṭaka* alone.

Upon his death the old clouds began again to roll up darkly over the island: a Pâṇḍyan army landed upon its shores, "and began to lay waste the country and extirpate the religion of Budha."[106] This time, however, the troubles lasted but a short time, and the new king, **Parâkramabâhu IV.,** A.D. 1314 to 1319, succeeded in making peace with the enemy.[107] This prince's tutor taught him to be interested in the **Jâtakas,** or legends of Buddha's numerous incarnations; he had them translated into the Sinhalese language, and, after the translation had been revised by competent scholars, he distributed copies of these legends throughout his dominions, placing the original in the custody of his chief priest.[108]

For nearly a century after the close of this king's reign the Ceylonese legends are barren of all literary notices, with the single exception of the appearance of the **Nikâya-saṅgraha,** one of the minor historical authorities in the Sinhalese language, which is assigned[109] to the reign of Bhuvanêkabâhu IV., A.D. 1347 to 1361.

In the 15th century **Parâkramabâhu VII.,** A.D. 1410 to 1462, caused new commentaries to be written upon the Buddhist scriptures, apparently in the Sinhalese language, and he rewarded the authors of these expositions with grants of land and promoted them to higher orders.[110] Possibly these may be the Sinhalese commentaries on Buddhaghôsha's **Visuddhi-mârga**: if, as is probable, they were

[95] Upham, I. 318, 319, 322, 323; II. 93, 95, 97, 98, 256, 257, 259.
[96] Upham, I. 319; II. 94. 257.
[97] Upham, I 322; II. 97ff. 258.
[98] Upham, I. 324; II. 98, 106, 257, 259.
[99] Upham, I. 330, 331; II. 106, 261.
[100] Upham, I. 344.
[101] Turnour, Introd. p. ii.; Hardy's Man. Bud., 518.
[102] Turnour, Introd., p. ii.
[103] Upham, I. 354; III. 354.
[104] Upham, II. 107.
[105] Upham, II 259.
[106] Upham, I. 355; II. 108, 263.
[107] Upham, I. 355; II. 108.
[108] Upham, I. 356; Upham's *History of Buddhism*, 32.
[109] Turnour, Introd. p. ii.
[110] Upham, II. 113.

written at this time.[111] The **Saddharmâlaṅkâra** also belongs to this king's reign.[112]

There are no indications in these books that Ceylon derived any of its literature from India at a later date than this; the last embers of Buddhism were then fast expiring there. The more recent sources of this literature were the Buddhist countries to the east of the Bay of Bengal, which had originally obtained their religious books from Ceylon.[113] There was a constant commercial intercourse with these countries from early times, frequent interchanges of complimentary and religious embassies also took place between their sovereigns,[114] and their canonical scriptures are identical with those of Ceylon.[115] The monasteries of the maritime districts of the island enriched their libraries from time to time by fresh additions of manuscripts brought to them by ship; and it is still in these seaside monasteries alone that the *Tripiṭaka* is to be found complete.[116] Some of these contributions were probably enough a restoration of some of the lost books of Ceylon, which had been carried to those countries by the Ceylonese monks when fleeing from their persecutions at home, and others were copies of the older manuscripts transliterated in the characters of their new homes. Professor Oldenberg has informed us[117] that all the manuscript copies of the *Dîpavaṁsa* which he used for his work bear marks of having been derived from one and the same Burmese original; and the first discovered copy of that work was written in the Burmese character, and was found by Mr. Turnour amongst some manuscripts which had been brought to Ceylon from Siam.[118] It was also from that collection of Siamese manuscripts that he obtained a reliable copy of the commentary on the *Mahâvaṁsa* which he used for his translation of that work. The Colonial Library of Ceylon contains manuscripts which were presented by the king of Burma,[119] and the monastery-libraries of the island possess manuscripts which were "brought from the Camboja country," written in the character which is used there.[120] The Mutaliyâr, George Nadoris, brought back to Ceylon a valuable collection of Pâli books on his return from Siam in A.D. 1812.[121] Previous to this time an embassy of Buddhist priests from Siam arrived in Ceylon in A.D. 1758, bringing presents of books with them, and similar earlier religious missions from that country brought similar complimentary presents with them.[122]

FOLKLORE IN WESTERN INDIA.

BY PUTLIBAI D. H. WADIA.

No. XII.—*The Artist's Stratagem; or the Princess who was resolved never to marry.*

Once upon a time there lived a great Râjâ, who had an **only daughter.** She was very beautiful and highly accomplished, and numbered amongst her other favourite pursuits that of **hunting.** She frequently went long distances on hunting excursions with a number of attendants, and penetrated the deepest recesses of the forest in search of sport.

One day, as she was galloping after a fine buck, she all of a sudden found herself in a dense forest, and saw that she had ridden considerably ahead of her followers. So she waited for a time and then climbed up a tree to try if she could see some signs of them in the far distance or find some way out of the forest; but on gaining the topmost branch she was appalled to **see a great fire** in the distance,—evidently a part of the forest in flames.

The poor princess was, as it were, nailed to the spot at this awe-inspiring sight, and stood there watching for hours the fork-tongued monster wrapping trees and shrubs, as well as the haunts and homes of numberless birds and beasts in his fiery embrace, and destroying everything that came in its way. She could

[111] Hardy, *Man. Bud.* 512 [112] *ibid* 518

[113] Turnour, Introd p. xxx: Hardy, *E. Monach.* 365 Bigandet, Introd. p. ix.: Tennent's *Ceylon*, i. 416.

[114] Tennent's *Ceylon*, I 416, 607 ff.

[115] *Journal As. Soc. Beng* vi. 503. Turnour, Introd p. xxx.: Hardy's *E. Monach.*, 330.

[116] Turnour, Introd. p xxx.

[117] *Dîpavaṁsa*, Introd. p. 11.

[118] *Jour. As Soc. Beng.*, vi. 790; vii. 922.

[119] Oldenberg's *Dîpavaṁsa*, Introd. p. 10.

[120] Upham, III. 171, 185.

[121] *Journal As Soc. Beng.*, vi. 790: Turnour, Introd. p xxxi: Hardy, *E. Monach.*, 328.

[122] Turnour, Introd. p. ii.

see whole herds of deer and cattle running about in a mad frenzy at their inability to find their way out of what seemed to them to be certain death, and birds of strange and varied plumage, suffocated by the thick smoke and unable to fly in the heavy atmosphere, charged with flying embers from the great fires around, uttering piercing screams of anguish before yielding to their inevitable doom.

In the midst of all this scene of woe the good princess was deeply moved to see a **pair of wild geese** straining every nerve to **save their young ones** from the clutches of **the fire.** Their difficulty was enhanced by the facts that the poor little creatures had as yet no wings, and were therefore totally unable to take care of themselves, and that it was beyond the old birds' strength to carry them in their beaks, as they tried hard to do, away from the closely pressing flames. So they flew about distractedly here and there, not knowing what to do, till the fire came too near to leave them any hopes of saving either themselves or their young ones. Just, however, as the flames were about to catch the nest, the old **male bird,** not wishing to sacrifice his own life, since he was unable to save those of his family, made a last desperate attempt, and with one effort found himself safe **out of the reach of danger**; while at the self-same moment the poor **mother goose,** as if resenting his selfish conduct, threw herself like a canopy over her unfortunate brood, and, with a wild scream of anguish, suffered herself to be **burnt in the flames** that just then closed over her and her innocent offspring.

The princess, who had watched all this with growing interest, was deeply touched at the sight. "Ah," said she to herself, "how **selfish** and false these **males** are! I am sure they are the same all the world over, whether they be birds, beasts or men! I shall therefore neither have anything to do with them, nor trust them: nay I shall **continue single** all my life rather than marry one of them."

Hardly had the princess formed this rather rash resolve when she perceived her attendants coming towards her. They had come there to look for her, and when she got down and joined them they were highly delighted, for they had given her up for lost.

But from this day forth our heroine wore a grave look, shunned the society of all her male friends, and declared to her parents her firm determination never to enter the bonds of matrimony. This caused the old people great grief, and they implored her to tell them what had made her form so unwise a resolution. But the princess remained silent and would give them no explanation, so at last everybody came to believe that the king's daughter was not for marriage, and the number of suitors for her hand consequently fell off.

One day it happened that a great and renowned artist paid a visit to the great Râja's court, and by His Majesty's command executed some very rare paintings for the royal palace, and when the time came for his departure he begged of the beautiful Princess to give him a few sittings, to which she agreed after great hesitation, and allowed him to draw upon canvas a faithful likeness of her fairy face and figure. In a few days **the picture** was finished, but the artist, instead of handing it over to the princess, quietly went out of the city with it.

Now, the artist knew of an old Râjâ, who was a great connoisseur of paintings, so he went straight up to him with the princess's portrait, and sold it to him for a large sum of money. The picture was duly hung up in the great hall of audience, where it soon became the cynosure of all eyes and the topic of universal admiration, and all who looked upon it were struck with the enchanting beauty of the fair subject, and wondered very much who the original could be.

A few days after this it happened that the king's only son and the heir to his throne, who was away hunting when the picture was purchased, returned to the capital, and as soon as **he saw the picture fell heels over head in love** with the lovely image on the canvas, without even taking the trouble of inquiring who the original was. He gave up all enjoyment, shunned all pleasure, and moped away in silence in a corner of the palace, to the great grief of his aged father, who, when he learned the cause of his son's sorrow, felt very anxious about his health, and sent messengers in search of the artist, with a view to find out who was the subject of his picture. But all search proved fruitless, for the artist had long left the country and gone away, nobody knew where.

This vexed the young prince still more, and told so very badly upon his health and his temper that he grew highly capricious and headstrong, and regarded everyone with the greatest disfavour. One day the prime minister, an old and trusted servant of the State, happened to arouse him by mistake from a reverie into which he had fallen, and he lost his temper to such an extent as to sentence the poor old man to death there and then. Now, in the old Râja's palace the young prince's word being law, the old man saw nothing for it but to submit to his doom. As he was, however, being led away to execution the old Râjâ heard of it, and summoning his son into his presence, prevailed upon him to grant the old man a remission of his sentence for a few days, so that during that period he might make over charge of his public and private duties to other hands. To this the prince, after some difficulty, consented, and the old prime minister was allowed to go home to his family for the time.

He was resolved not to distress his family by telling them of the doom that awaited him, but they soon suspected from his pale and careworn look that something was wrong with him. They dared not question him, however, for some time, till his youngest daughter, who was a great favourite, at last put together all her courage, and, by her winning and persuasive ways, succeeded in learning from him the cause of his sorrow.

Now this young lady was very clever and full of resource, so she soon found a way of getting her father out of the difficulty. She went in person to the young prince, and, having succeeded in getting an audience, begged very hard of him to spare her old father's life till such time as she herself could go abroad and make an effort to find out who the original of that wonderful painting was, and in what part of the world she lived.

This pleased the prince very much, for in the scheme which the young lady unfolded to him he saw some prospect of realizing what was to him at the best a dream. He therefore gladly withdrew his terrible mandate, and the good old prime minister was once more welcomed by the Râja, who gladly restored him to his former high position.

Soon after this the prime minister's daughter began to prepare for her journey. At first she set to work and drew a faithful copy of the great artist's picture, and then, dressing herself in male attire, set out on her travels as an artist bound to some distant country. She had an arduous task before her no doubt, for she hardly knew which way to go and where to inquire about the princess, but filial affection lent her courage, and she firmly resolved either to find out the princess or perish in the attempt.

So she travelled on and on for many months, and showed the picture wherever she halted, and to all she met, in the hope that it would be identified, but all to no purpose. At last, after more than a year's weary wandering, she arrived at a very distant and, to her, a very strange country, and there, to her great joy, everyone who saw the picture pronounced it to be a true and speaking likeness of the daughter of the Râjâ of the country: "she," they said, "who is determined never to marry."

"Never to marry!" said the fair artist in surprise, "and what has made her form such a strange resolve?"

"Nobody can tell," was the reply, "even her parents do not know it."

This news somewhat damped the ardour of the prime minister's daughter, for it was quite an unforeseen emergency, and she was at a loss to know how her mission could be successful with one who was thus determined never to enter the bonds of matrimony.

Nevertheless, she took heart, and, hiring a house in close proximity to the Râjâ's palace, opened her studio there. Each day she sat there near a window which commanded a view of the palace, and worked away with her paints and brushes, till at last the Râjâ's attention was drawn towards her. So one day the Râja summoned her into his presence, and, after closely examining all her pictures and other works of art, extolled them highly and honoured her with a commission to execute some paintings for a palace which he was then building for the especial use of his favourite and only daughter. The fair artist willingly obeyed the king's command, having in the meanwhile seen the princess several times with her own eyes, and made sure that she was no other than the original of the picture which had

driven her prince well-nigh out of his senses. Accordingly, when the palace was ready, she went there and set to work painting the most artistic and lovely designs she could imagine on the walls, under the arches, and in every likely place. The Râjâ and all the nobles and even the ladies of the court paid occasional visits to the palace, and they all, with one voice, admired both the workmanship of the artist and his choice of subjects. Each picture seemed to be a study in itself, and each had a history of its own which the artist related in a most interesting and winning manner. This latter fact drew a number of other female visitors to the palace, amongst whom were the ladies in immediate attendance on the princess, and these the artist thought were the persons most likely to know and tell her the reason why the princess shunned the society of men, and why she was determined never to enter into wedlock.

So she soon set to work and won them over to her with her persuasive arts and delightful ways, and succeeded in learning from one of them, to whom the princess had confided her secret, the true story of her adventure in the forest and her consequent determination.

This was all the artist desired, and directly afterwards she drew on one of the walls of the drawing-room a picture just the reverse of what the princess had seen in the forest—**a picture representing the infidelity of the female and the devotion of the male.** For the geese she substituted a pair of antelopes, while in place of the princess she made to stand a very handsome young prince, so young, so brave, and so handsome, as to win the heart of any woman.

When this picture was ready our artist persuaded all the lady friends of the princess to request her to come and have a look at it, and at last one day, to her great joy, the princess honoured her with a visit, and going from picture to picture highly admired the artist's skill. When, however, she at last came to the picture of the antelopes and the prince she seemed greatly surprised and stood for a while lost in thought. Then, turning to the artist, she said:

"What is the history of this picture, my good friend?"

"O! fair princess!" replied the disguised daughter of the prime minister, "this picture represents an adventure the prince of our country had some time ago in a forest—perhaps it might not interest you much, madam, though it concerns us, loyal subjects of his father, very nearly, as this very episode in our prince's life has brought a change over his whole existence, for since that time he has shunned all thoughts of marriage, as he believes that the fair sex are all false and faithless and that it is of no use to trust them. This determination of his son and heir causes our good old Râjâ great grief, and has thrown a gloom over his whole court."

"How strange!" cried the princess, interrupting the artist, "can males then be faithful and females false? I, for one, always believed it was the males who were false and faithless everywhere on earth; but now I see that there are two sides even to this question. I have as yet observed but one instance, and have since then been labouring under a false impression, but I shall not judge men so harshly hereafter."

"O! I am so glad to hear you say so, good princess," cried the artist in delight; "how I wish our good prince too would see his mistake as you do yours."

"Some one should point it out to him, I think," said the princess, "and perhaps, like me, he too might change his mind. As I have benefited by an episode in his life so he might profit by one in mine, and therefore you are at full liberty to relate my case to him and see what effect it has on him."

"Surely I shall, with the greatest pleasure, when I get home," replied the artist, her little heart fluttering with joy at this unexpected success in her undertaking.

Now, from this day it became known all throughout the Râjâ's dominions that the fair princess had conquered her aversion to matrimony, and was once more open to offers of marriage, and there was again a crowd of eager aspirants to her hand. But the princess studiously discarded all their attentions, and seemed to derive no pleasure from their company. Her chief delight was in looking at the pictures the artist had painted in the new palace, and talking to her solely about the young prince, in whom she felt greatly interested

The fair artist, thereupon, to secure the interests of her Râjâ's son, fanned the flame by telling her strange and vividly-coloured stories of his manliness, valour and virtues, till at last she inspired her with such a love for him that one day, being unable to contain herself, the princess expressed an earnest desire to see him. This was the very thing the clever young lady desired, and she readily promised to go back to her country and do all in her power to bring her prince to the feet of the fair princess by telling him her story and thereby creating in him a desire to see her.

Great was the joy both of the old prime minister, her father, and the gallant young prince when our fair artist returned home after a long absence, and related to them the successful termination of her mission. The old man hailed her as the saviour of his life, and the young prince loaded her with honours and precious gifts.

Immediately afterwards the prince set out with a grand cavalcade and a magnificent train of followers for the court of our fair heroine's father, and, needless to say, he was soon accepted as a worthy suitor for the fair princess's hand, and in the course of a few days their union was celebrated with due *éclat* and rejoicings.

CHINGHIZ KHAN AND HIS ANCESTORS.

BY HENRY H. HOWORTH, F.S.A.

(*Continued from p.* 114.)

When the Taijuts had withdrawn, Temujin said to himself: "Lately, when I was taken round from one encampment to another, while I stayed in the house of Sorkhan Shira, his sons, Chinbo and Chilaoun,[15] shewed me sympathy. At night they removed the wooden collar and allowed me to rest at ease. To-day Sorkhan himself has concealed my whereabouts from his companions and has done so more than once. I will go to him. Assuredly he will protect me." He accordingly went along the Onon looking for Sorkhan's *yurt*, which could be recognised from afar from the noise made by the machine for making *kumiz* (the *Altan Topchi* says the noise made in mixing the milk for making arrak) which went on from morning till evening.

Guided by this noise Temujin found the *yurt*, and when he entered it Sorkhan said to him: "I told you to go and seek out your mother and brothers, why have you come here?" His sons, Chinbo and Chilaoun, said: "When a small bird is chased by a hawk it hides itself in the grass. If we do not offer shelter to a man who flies to us we shall be behaving more ungraciously than the grass." They then removed the cangue and buried and hid him in a load of sheep's wool which was standing at the back of the *yurt*, and told their sister Khadaan[16] to look after him, and to say nothing about it. The *Altan Topchi* says they told her to lie down beside him.

On the third day the Taijuts said to one another: "Has not some one hid Temujin? Let us search our camp." They accordingly began a search, and they looked over Sorkhan's *yurt*, his *kibitka* and under his couch. They then went to the cart loaded with wool and commenced to throw the wool out. When there remained only the back part to be searched, Sorkhan said: "Could a man in such a hot season exist under this wool?" They then left off their search and left. When they were some distance off Sorkhan said to Temujin: "You have nearly been my destruction; you have nearly blown the fire out of the ashes.[17] Go now and search out your mother and your brothers." He thereupon gave Temujin a mare which had never foaled, which had a yellow body and a white face, and unfastened its strap, as is customary still among the Mongols when presenting a horse. He also gave him a fat roasted lamb which had been fed with the milk of two ewes,[18] some mare's milk in a skin, and a bow with two arrows, but not an instrument for making fire.[19]

This quaint saga is reported at length in the *Yuan-ch'ao-pi-shi* and also in the *Altan Topchi* and by Ssanang Setzen. The two latter authorities call the Sulduz who helped Temujin Torghan Shara. I have, in one or two difficult passages, where the Chinese Editor of the *Yuan-ch'ao-pi-shi* seems to have misunderstood his author, used the version in the *Altan Topchi*

[15] Called Chimbai and Chilaghon by Ssanang Setzen.
[16] Called Shilughukhan Khatakhan by Ssanang Setzen.
[17] *i.e.* destroyed him.
[18] The *Altan Topchi* says a two years old kid.
[19] *Yuan-ch'ao-pi-shi*, pp. 43 and 44.

The story is also told with very slight variation by Rashîdu'd-dîn in his account of the Sulduz tribe, and also by El Benaketi. Rashîdu'd-dîn also tells us that while Temujin was a prisoner and encumbered with the heavy wooden collar an old woman named Taiju Igjeh,[20] who had married a Merkit, treated him with kindness, combed his hair and put a piece of soft felt over a sore which had been caused on his neck by the rubbing of the collar.[21]

Temujin now set off to find his family, he passed the site of his recent adventures, and then went along the Onon. Having reached the river Kimurkha or Tsimurki, which we are told falls into the Onon on the west, he noticed some footmarks on its banks. He went up this small river. Near it we read there is a hill called Beter, opposite which is another small hill called Khorchukui. Here he found his mother and his brothers, with whom he moved to the mountain Burkhan.[22] There is there, says the *Yuan-ch'ao-pi-shi*, a mountain called Gulialgu, whence flows the river Sangur (doubtless the Sungher, an affluent of the Kerulon). Near this river is the small mountain called Kharachiruge and a green lake. Further on the same author calls it Kukunur, and the Chinese commentator Si-Sun suggests that it may refer to lake Kukusher, if this is not too far off.

Here Temujin built himself a *yurt*, and caught moles and steppe mice, on which he fed himself.

Some time after this some thieves[23] stole eight of Temujin's horses. They left him a light yellow one, on which Belgutei had ridden off to catch these animals.[24] On his return with a number of moles he had caught Temujin told him what had happened. Belgutei and Khasar both volunteered to go in pursuit of the robbers, but Temujin said he would go himself. He accordingly went off, and in three days came upon a drove of mares, among which was a boy milking, whom he asked if he had seen the stolen horses. He replied that before sunrise they had been driven past there and offered to show him the direction. He allowed Temujin to fasten his horse, and also allowed him to change it for a white horse with a black band on its back.[25] He then hid the skin and leather milking gear in the grass and said to Temujin: "You are quite tired with your journey; I will be your companion and help you to recover the horses. The troubles of young men ought to be shared. My father is called Nakhu-boyan, I am his only son, my name is Burchu." The two rode together for three days along the track made by the horses' feet. At length they reached an enclosure inside which were the eight horses. The *Altan Topchi* says a number of Taijuts who were on guard around had fallen asleep. Temujin wished to enter the enclosure alone, but Burchu insisted on accompanying him in his dangerous work. They succeeded in driving away the horses. The kidnappers now gave chase, one of them, seated on a white horse, held a lasso in his hand and had almost overtaken them, when Temujin turned to shoot at him, whereupon he fell back, and as it was getting evening the robbers drew away.

The two boys now made for the residence of Nakhu-boyan. Temujin then said to Burchu: "Without you I could not have recovered the horses; let us divide them; which will you have?" Burchu replied that he had accompanied him because he saw he was weary, and he did not see why he should ask for what was not his. "I am the only son of my father, and there is enough wealth for me, I don't want yours. If I were to demand anything from you how should I be your comrade?"

When they entered the *yurt* of Nakhu-boyan they found him in tears for the loss of his son, and on seeing him again he scolded him. Burchu explained the cause of his absence, and then rode off to fetch the leather skins and apparatus with the milk which he had hidden. He killed a fat lamb which had been fed on the milk of two ewes, filled a leathern skin with mare's milk, and gave them all to Temujin for his journey. Nakhu-boyan said to them: "You are both young. Mind you remain friends, and in the future do not forsake each other." Temujin now set off home again, and in three days reached the banks of the Sangur, where his mother and his brothers were delighted to see him again.[26] According to the *Yuan-*

[20] So called because she was a Taijut.
[21] Erdmann, Temujin, 210-211.
[22] *i.e.* to the Kentei.
[23] The *Altan Topchi* says they were Taijuts.
[24] The *Altan Topchi* and Ssanang Setzen says marmots.
[25] The *Altan Topchi* calls the horse the swift short-eared piebald.
[26] *Yuan-ch'ao-pi-shi*, pp. 45-47.

chuan, or biographical part of the *Yuan-shi*, Burchu belonged to the tribe Arlat or Arulat.[27] The *Altan Topchi* calls him Kuluk Borguchi, son of Lakhu-boyan. Ssanang Setzen calls him Külük Boghorji, son of Nagho Boyan of the tribe Arulad. Gaubil calls him Porgi. Rashîdu'd-dîn calls him Bughurjin or Burguji, and also tells us he belonged to the tribe Arlat or Arulat.[28]

He also reports another occasion on which he befriended Temujin in his young days. A party of a dozen Taijuts having suddenly appeared Temujin found himself with only Bughurjin and Buraghul or Burgal Noyan of the tribe Hushin,[29] called Bughurul of the tribe Ugushin by Ssanang Setzen. He advanced bravely to meet the enemy. They shot twelve arrows together at him, and he was struck in the neck and the mouth and fainted through pain. There was much snow about, and Buraghul warmed a stone with which he melted some of the snow and held his mouth over the steam which arose, so as to soften the clotted blood in his throat to enable him to breathe more freely. As the snow fell thickly Bughurjin took off his own mantle and held it over his friend to keep the snow off, and continued doing so till the snow reached up to his own girdle. He eventually took him to his house.[30] In the *Yuan-ch'ao-pi-shi* this incident is also referred to, Burchu alone being mentioned. It is said that he held his felt cloak over Temujin until dawn, only once changing from one foot to the other. The locality where it happened is there said to have been Talannemurgesi, near the Tatar country.[31] In the *Yuan-shi* the incident is attributed to Borchu and Mukhuli.[32] A third saga of a similar kind is reported by Rashîdu'd-dîn. He says that once, when Temujin was far from his people and pressed by the enemy, Bughurjin and Buraghul sought in mountain and plain for food for him but found none. They had a fishhook with them, with which they fished in the river and caught a great fish. Baghurjin Noyan wished to draw it out, but failed on account of his terrible hunger and faintness and fell down. Temujin noticing how weak and worn out he was, and that he had no flesh on his thighs, sighed aloud and said to Buraghul Noyan: "Be not sorrowful and disponding; I will take good care your legs are again covered with flesh."[33]

Temujin was always faithful to his friends, and Bughurjin became eventually commander of the right wing of the Mongol army and the first subject of the Empire. Baghural was successively promoted to the post of *bukaul*, *i.e.*, chief cook; *bararchi*, *i.e.*, a kind of chamberlain; centurion of the body-guard; millenarian, chief of a *tuman*, *i.e.*, of 10,000 men; and lastly, second to Bughurjin in command of the right wing. He was killed in a fight with the Tumeds.[34]

To return to Temujin. As we have seen, he had left his betrothed in her father's house on his return home at the time of his own father's death. We are told in the *Yuan-ch'ao-pi-shi* that he now set off with his brother Belgutei to fetch her home. He rode down the Kerulon until he reached the valley between the mountains Chekcher and Chikhurkhu, where the father of his bride, Dai Setzen, lived. He was pleased to see him, and said he feared he might not see him again, since the Taijuts had taken such a dislike to him that it might have gone badly with him. He now gave his daughter Burté to him for his wife, and he and his wife Sotan accompanied them on their way home again as far as Urakhchuel on the Kerulon. At that point he turned back, but his wife Sotan went with the young couple right to their very home and then returned. This was in accordance with the Mongol custom, which prescribes that the relatives, except the father, shall accompany a bride to her new home. Temujin now wished to have Burchu as a companion and he sent Belgutei for him. Without telling his father he set off at once on his hump-backed tawny horse and wearing his black furskin, and thenceforward he was Temujin's constant companion. The latter now struck his tent on the river Sangur and moved to the upper valley of the Kerulon and planted himself at the foot of the Burgi.[35]

[27] *Id.* note 117.

[28] Erdmann, Temujin, p. 205.

[29] *Id.* 209, D'Ohsson. p. 1, note 157.

[30] Erdmann, pp. 205-206, D'Ohsson, Vol. I. pp. 43 and 44.

[31] *op. cit.* page 116.

[32] *Vide id.* note 446.

[33] Erdmann, p. 206.

[34] *Vide* infra, D'Ohsson, Vol. I. p. 157, note 1. Erdmann, p. 209.

[35] *i.e.* the Birgadaba, a branch of the Kentei, south-east of the source of the Kerulon.

RAJIM STONE INSCRIPTION OF JAGAPALA OF THE KULACHURI YEAR 896.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

This inscription, which I edit from two fairly good rubbings supplied by Sir Alexander Cunningham, and sent to me by Mr. Fleet, was first brought to public notice in 1825, when Mr. (afterwards Sir) Richard Jenkins presented to the Asiatic Society of Bengal a copy of it, together with a translation prepared with the assistance of the Paṇḍits, from which Prof. H. H. Wilson published a Dêvanâgarî transcript and a kind of translation, in the *Asiatic Researches*, Vol. XV., page 512 *ff*. It has last been referred to by Sir A. Cunningham, in the *Archæol. Survey of India*, Vol. XVII. page 18.

The **inscription** is on a wall of the temple of Râmachandra at **Râjim**, a town in the **Râypur District** of the Central Provinces, on the right bank of the Mahânadî river, about twenty-four miles to the south-east of Râypur.[1] It consists of 19 lines.—The **writing** covers a space of about 2′ 3½″ broad by 1′ 1″ high, and appears to be well preserved throughout. The **size** of the letters is from ⅜″ to ½″. The **characters** are Dêvanâgarî.—The **language** is Sanskṛit, and, excepting the first and about half of the second line, a portion of line 15, and lines 17-19, containing the names of the composer and of the engraver, and the date, the inscription is in verse. It was composed by the *Ṭhakkura* Jasânanda, son of the *Ṭhakkura* Jasôdhara, of the Ayôdhyâpurîya family; written, as well as engraved, by the artizan Ratnapâla.

In respect of **orthography**, the observance of the rules of euphony, and of grammar generally, the inscription is full of mistakes of every description. As regards orthography, the dental is frequently put for the palatal sibilant, and *ba* is denoted by the sign for *va* everywhere except in *mahâsabda*, line 1. Besides, the dental *n* is put for the guttural *ṅ* in *alaṅkrita*, line 1; for the palatal *ñ* in *anuranjaka*, lines 2 and 17, *pancha*, line 5, *satyan=cha*, line 10, and *sâdhitân=cha*, line 16; and for *anusvâra* in *Paṁcha[ha]nsa*, line 2, *vinsa*, line 5, and *vansê*, line 13. On the other hand, the lingual *ṇ* has taken the place of the dental *n* in *nihaṇyêt*, lines 7 and 8, and even in *punar=ṇṇavê*, line 12. *Kshya* we have for *khya* in *vikshyâtâ*, line 5; *gha* for *ha* in *siṁghêna*, line 8; *jya* for *dya* in *bhavêjjyasya* (for *bhavêd=yasya*), line 2, *bhayâjjyasya* (for *bhayâd=yasya*), line 7, and in *prâṅmukhâjjasya* (for *prâṅmukhâd=yasya*), line 8. A superfluous and altogether wrong **visarga** we find in *Sâhilla-nâmâḥ*, line 2, *sahaḥ*, line 4, *ratâḥ*, line 6, *sarvvadâḥ*, line 14, *nâmaḥ*, line 15, and even in the midst of compounds, in *kshatriyaḥ-kula*, line 8, *Ratnadêvaḥ-nṛipa*, line 9, and *sôbhaḥ-saṁkâsârthaṁ*, line 14. On the other hand, the sign for the *visarga* has been omitted after *pattanai*, line 4, *maṇḍalêsvarâ*, line 7, and *gajâ*, line 8. In other places which it is unnecessary to point out separately, we have *visarga*, where by the rules of euphony it ought to have been either dropped or changed to *r*, or where final *aḥ* ought to have become *ô*. And elsewhere again, as *e.g.* in *anujô putrô*, line 5, *Kauntêyô satyair*, line 12, final *aḥ* has been changed to *ô*, where that change ought not to have taken place.

To set the **grammar** right in every particular, it would be necessary to rewrite nearly the whole inscription, or to append more remarks to it than the inscription deserves. But to give an idea of the author's want of proficiency, I may point out some of his errors. The Potential mood he employs for the Imperfect tense in *âdhipatyaṁ bhavêjjyasya* (for *âdhipatyam=abhavad=yasya*), line 2; *tasy=ânujô=bhavêd=*(for *bhavad=*) *bhrâtâ*, line 3; *Bhâyilaṁ cha bhavêt=putraṁ* (for *Bhâyilaś=ch=âbhavat=putraḥ*), line 3; and *nihaṇyêt* (for *nyahan*), line 7. Neuter or Accusative forms he most frequently uses instead of masculine or Nominative forms. Thus we find *grâmaṁ*, *dêsaṁ*, *putraṁ*, *vikramaṁ*, *vîraṁ* and many others used as Nominative cases, for *grâmaḥ*, *dêśaḥ* etc.; *prâsâdaṁ kâritam=imaṁ*, in line 14, as a Nominative, to express the meaning 'this temple was caused to be built'; *sâdhitân=cha vasundharâm*, in line 16, for *sâdhitâ cha vasundharâ*. For the word *dhanvin* our author uses *dhanvina*, of which he forms the Nominative Sing. either *dhanvinô*, line 7, or *dhanvinaṁ*, line 16. The Nominative Sing. of *mahâbâhu* is *mahâvâhô*, line 6; that

[1] See Grant, *Gazetteer of the Central Provinces*, page 425.

of *bhagavat*, *bhagavantaḥ*, line 15. In line 3 we have *ripavaḥ kshaya-kâriṇam*, for *ripûṇâṁ kshaya-kârî* or *ripûṇâṁ kshaya-kâraṇam;* in the same line the Genit. *têshâṁ* for the Instr. *taiḥ*: in line 4 *navasataḥ grâmâḥ* for *navaśataṁ grâmâḥ*; in line 6 *êbhiḥ putrô*, probably for *anayôḥ putrô*: in line 18 *mahatkavi* for *mahâkavi*, etc. Where an author has so imperfect a command of the language, it is sometimes difficult to guess what he really means to say; and, in the present case, this difficulty is occasionally increased by the loose way in which the several sentences or portions of sentences are connected with each other, or by the actual omission of important statements. Thus, to mention only one instance, we are obliged to guess that the lady Udayâ, who is introduced to us in line 5, was married to one of the chiefs mentioned in the preceding lines; and it is not at all clear whose wife she was, and who therefore was the father of the chief Jagapâla, for whose glorification the whole eulogy was composed.

The inscription is **dated**, in lines 18 and 19, on Budhadina or Wednesday, the eighth lunar day, called *rathâshṭamî*, in the bright half of the month Mâgha, in the Kulachuri[2] (or Kalachuri) year 896. And it records (line 14) that a personage named **Jagapâla,** also called **Jagasiṁha** (line 10), in honour of Râma, had established "this temple" (presided over at the time by the venerable, the illustrious Muktâtman, line 15), evidently the temple of Ramachandra, where the inscription still is, and had assigned, for the *naivêdya* or offerings of eatables to the idol, the village of **Sâlmalîya.**[3]

I have elsewhere[4] tried to show that the right equation by which to ascertain the corresponding English date for a date recorded in **the Chêdi or Kulachuri era,** is A.D. 248-49=0, or A.D. 249-50=Chêdi-saṁvat 1; and applying this equation in the present case, I have found by Professor Jacobi's tables that the 8th lunar day of the bright half of Mâgha, 896, corresponds to the 3rd of January 1145 A.D., which *was* a Wednesday, as required. On that day, at sunrise, the 8*th Tithi* of the bright half was current, and it ended 10*h* 59*m* after mean sunrise. By way of confirmation, I may be allowed to add that, as there was a solar eclipse about noon on December 26th, 1144, the following 3rd of January, under ordinary circumstances, *would* have been the 8th day of a bright fortnight. Why this 8th of the bright half of Mâgha should here be described as *rathâshṭamî*, I have no means of ascertaining. In the works at my disposal, as, *e.g.*, in the *Dharmasindhu*, the 8th of the bright half of Mâgha is styled *Bhîshmâshṭamî*, and it is the 7th of the bright half of the same month, that is called *rathasaptamî*.[5]

By far the greater portion of our **inscription** is taken up with the genealogy of **Jagapâla,** and with a recital of his own military exploits, as well as those of his ancestors; and, apart from the manner in which it is dated, the inscription is valuable as furnishing a comparatively large number of names of places and districts, most of which still await identification, and because of the references which it contains, to the reigns of the princes **Jâjalladêva, Ratnadêva** and **Prithvîdêva,** known to us also from other inscriptions.

As regards the genealogical and historical portion, the inscription opens by describing (lines 1 and 2) the *Ṭhakkura*, the illustrious **Sâhilla,** the spotless ornament of the illustrious **Râjamâla** race, which gave delight to the **Pañcha[ha]ṁsa** race, as having gone forth from the **Vaḍahara** country, and as having been gladdened by the attainment of the *pañcha mahâśabda*, and furnished with a banner the flag of which had the lustrous appearance presented by a firefly sitting on a golden jar(?).

[2] In the present inscription the spelling *Kulachuri* appears to me to be certain; in an unpublished inscription of the year 926 the word is spelt *Kalachuri*: and it is written in both ways in the Kumbhi copperplate of Gosaladevî, published in the *Jour. Beng. As. Soc.*, Vol. XXXI page 116

[3] See *Asiatic Researches*, Vol XV. page 501.—"The Pandehs say that there was formerly a village of that name not far from Raju, which was appropriated to the temple, but that the village has been since deserted, and in lieu of it a village called Rohna, erected not far from the ancient site of the former, was subsequently granted, and is still held by them."

[4] See *Nachrichten der Ges. d. Wissenschaften, Gottingen*, 1888, pp. 31—41.

[5] [So also the *rathasaptamî* of the month Mâgha is mentioned in the Sâmângaḍ grant of Dantidurga, of Śaka-Saṁvat 675 (*ante*, Vol. XI. p. 112, line 31). As regards the modern practice, Kero Lakshman Chhatre, Ganpat Krishnaji, Bapu Deva Shastri, the *Chaṇḍu-Pañchâng* (Jodhpur), and Pandit Umacharan Muhatmin, all give Mâgha sukla 7 as *rathasaptamî* and Mâgha śukla 8 as *Bhîshmâshṭamî* But the *Sâyana-Pañchâng*, and another Indor almanac, while agreeing with the above in giving Mâgha śukla 7, as *rathasaptamî*, allot the *Bhîshmâshṭamî* to the *amânta* Mâgha or *pûrṇimânta* Phalguna krishṇa 8.—J.F.F.]

This Sâhilla, who made valorous chiefs tremble and became lord of the land which he acquired on the battle-field, had a younger brother named **Vâsudêva,** and three sons, **Bhâyila, Dêsala,** and **Svâmin,** who conquered the **Bhaṭṭavila** (or Bhaṭṭavala) and **Viharâ** countries. Svâmin had two sons, of whom the elder one, named **Jayadêva,** acquired the district of **Dâṇḍôra,** while **Dêvasiṁha,** the younger son, took the **Kômô** *maṇḍala.* In line 5, the inscription goes on to mention a noble lady the *Ṭhakkurâjñî* **Udayâ** who, to judge from the way in which she is introduced, must have been the wife of one of the two last-named chiefs, and the mother of **Jagapâla,** whose exploits are described in lines 6-11. Afraid of him, the valorous **Mâyurikas** and the **Sâvantas,** who are called lords of *maṇḍalas,* betook themselves to the mountains. Moreover, during the reign of the illustrious lord **Jâjalladêva,** Jagapâla conquered a country the name of which I am unable to make out; and, during the reign of the illustrious prince **Ratnadêva,** he acquired the **Talahâri** country and another district, about the name of which I likewise am doubtful. But Jagapâla's chief exploits appear to fall within the reign of the prince **Pṛithvîdêva,** when he not only took the forts **Saraharâgaḍha** and **Mavakâsiha-[vâ],** and conquered the **Bhramaravadra** country, but also took **Kântâra, Kusumabhôga, Kândâsê[hva]ra,** and the district of **Kâkayara.** Jagapâla would seem to have founded or rebuilt the town **Jagapâlapura,** which is mentioned in line 12, in a verse which I am unable to explain properly. From lines 15 and 16 we learn that he had two younger brothers, **Gâjala** and **Jayatsiṁha**; and, if I understand the words rightly, we are finally told that, during the reigns of the three princes mentioned above, the post of prime-minister was held by **Dêvarâja,** together with whom the three brothers Jagapâla, Gâjala, and Jayatsiṁha subdued the earth.

From this brief abstract it will appear that, as was seen already by Sir A. Cunningham,[6] Jagapâla and his ancestors were petty chiefs, generals or feudatories of the **Ratnapur** branch of the **Chêdi rulers,** whom they helped to extend their territory. Most of the places and districts mentioned (some of which are mentioned also in other inscriptions) must undoubtedly be looked for in the eastern portion of the Central Provinces, but I have not succeeded in identifying more than one or two on the maps at my disposal. **Kâkayara** has by Sir A. Cunningham been shown to be the modern **Kânkêr,** which in the *Gazetteer of the Central Provinces* is described as a chiefship situated to the south of the Râypur district; and it is possible that the concluding portion of the name which I read **Kândâsê[hva]ra,** may be identical with **Sêhâwâ** or **Sihôa,** situated to the east of Kânkêr. **Saraharâgaḍha** I take to be the modern **Sârangarh,** to the east of Râypur; and, if this identification be right, the name **Bhramaravadra** would appear to have survived in **Bâmrâ,** the name of a feudatory state attached to the Sambalpur district, to the east of Sârangarh. The tribal name **Râjamâla** of Jagapâla has by Sir A. Cunningham been adduced to explain the origin of the name of the town **Râjim,** where the inscription is, and where Jagapâla or his ancestors may be supposed to have resided.

Of the fairly numerous **inscriptions of the Chêdi rulers of Ratnapur,** a memorandum of which was furnished by Sir R. Jenkins[7] as early as 1825, only a single one (besides the one here re-edited) has been hitherto published, by Dr. Râjêndralâl Mitra, in the *Journal Beng. As. Soc.* Vol. XXXII. pp. 280-287; but the contents of several of them have been referred to in the volumes of the *Archæological Survey of India.* To show the genealogy of the earlier rulers of **Ratnapur,** and what place must be assigned in it to the three princes **Jâjalladêva, Ratnadêva,** and **Pṛithvîdêva,** mentioned in the present inscription, I shall give here the necessary data also from three other inscriptions, the text of which I shall publish elsewhere from rubbings supplied by Dr. Burgess.

1.—**A Ratnapur inscription of Jâjalladêva,** dated Saṁvat 866, Mârga su. di. 9, Ravau, = Sunday, 8th November, 1114, A.D., contains the following genealogy:—The Moon, Kârtavîrya, Haihaya, the Haihaya princes.—

Kôkalla, ruler of **Chêdi,** had eighteen sons, of whom the eldest was ruler of **Tripurî,** while

[6] *Archæol. Survey of India,* Vol. XVII. page 19.

[7] *Asiatic Researches,* Vol. XV. page 505 and 506. Some of the inscriptions mentioned by Sir R. Jenkins have since then suffered in the most deplorable manner.

the others became lords of *maṇḍalas*. In the line of one of these younger sons was born—

(1) **Kaliṅgarâja**, who conquered **Dakshiṇakôsala**, and made **Tummâṇa** his capital. His son was—

(2.) **Kamalarâja**, who begat—

(3.) **Ratnarâja** (Ratnêsa), the founder of **Ratnapura**. He married **Nônallâ**, the daughter of **Vajjûka**, chief of the **Kômô** *maṇḍala*, who bore to him—

(4.) **Prithvîsa** (Prithvîdêva). This prince married **Râjallâ**, from whom he had a son —

(5.) **Jâjalla** (Jâjalladêva). [Saṁvat 866 = A.D. 1114].

2.—**The present Râjîm inscription,** dated Kulachuri-saṁvatsarê 896 = A.D. 1145, mentions in the order here shown:

(5.) **Jâjalladêva** [Saṁvat 866 = A.D. 1114].

(6.) **Ratnadêva.**

(7.) **Prithvîdêva** [Kulachuri-saṁvat 896 = A.D. 1145].

3.—**A Malhâr inscription of Jâjalladêva,** dated Saṁvat 919 = A.D. 1167-68, contains the following genealogy: The Moon—

(6.) **Ratnadêva.**

(7.) **Prithvidêva** [Kulachuri-saṁvat 896 = A.D. 1145; and (according to *Archæol. Survey of India*, Vol. XVII. Plate XX.) Kalachuri-saṁvatsara 910 = A.D. 1158-59].

(8.) **Jâjalladêva,** described as ruler of the country **Tummâṇa**, [Saṁvat 919 = A.D. 1167-68].

4—**A Ratnapur inscription of Prithvîdêva,** dated [Vikrama-]Saṁvat 1247 (?) = A.D. 1190-91 (?), contains the following genealogy: The Moon—

(8.) **Jâjalladêva** [Saṁvat 919 = A.D. 1167-68]

(9.) **Ratnadêva** [according to *Archæol. Survey of India*, Vol. XVII. page 43, line 4 from the bottom, and plate XX., Chêdi-saṁvat 933 = A.D. 1181-82].

(10.) **Prithvîdêva** [Vikrama-]Saṁvat 1247(?) = A.D. 1190-91 (?)].

This last inscription is the one edited by Dr. Rajêndralal Mitra, according to whose account it is dated in [Vikrama-]Saṁvat 1207 = A.D. 1150-51. Accepting that date as correct, Sir A. Cunningham[8] has placed the inscription before the Malhâr inscription of Jâjalladêva, and has identified the three princes mentioned in it with the princes (5), (6), and (7) of the above list. But, in the first place, it is by no means certain that the figures on the stone (scratched on it rather than properly engraved, and perhaps added some time after the inscription itself was engraved[9]) are really 1207; on the contrary, on the rubbing before me the figures decidedly look more like 1247 than 1207. And secondly, it is perfectly certain that the inscription, which was written and engraved by the very persons, Kumârapâla and Sâmpula, who wrote and engraved the Malhâr inscription, was composed by the *son*, Dêvagaṇa, of the man Ratnasiṁha, who composed the Malhâr inscription, and that this Dêvagaṇa *had his father's composition before him*, when he composed his own inscription. Taking further into consideration that the inscription eulogises five of the grandchildren of Ratnasiṁha, the composer of the Malhâr inscription, and that moreover we have for a prince Ratnadêva the date Chêdi-saṁvat 933 = A.D. 1181-82, which cannot possibly refer to the Ratnadêva (6) of the Râjim and Malhâr inscriptions, but must refer to a prince of that name who came after Jâjalladêva (8), I feel convinced that the inscription has certainly been composed *after* Chêdi-saṁvat 933 = A.D. 1181-82 = Vikrama-saṁvat 1238, and I think it probable that the figures at the end of it are really Vikrama-saṁvat 1247 = A.D. 1190-91, and that these figures, by whom and whensoever added, furnish a true date for the last Prithvîdêva in the above list.

As regards the three rulers mentioned in the inscription here published, Nos. (5), (6), and (7) of the above list, nothing of any historical importance is mentioned of Ratnadêva and Prithvîdêva, in other inscriptions known to me. Regarding **Jâjalladêva**, we are told in the Ratnapur inscription of Saṁvat 866, that he was allied (?) with the ruler of **Chêdi**, and on friendly terms with the rulers of **Kanyakubja** and of **Jêjâbhuktika**; that he captured in battle [but subsequently released ?] one **Sômêsvara**; and that the chiefs of the *maṇḍalas*...[**Dakshi**]**ṇakôsala, Andhra, Khi-**

[8] *Archæol. Survey of India*, Vol. XVII, page 76

[9] A careful examination of the stone may possibly show that the inscription originally was dated in a year of the Chêdi era; for in the rubbing the first syllable of the word *saṁvat*, which precedes the figures 1247 (?), looks certainly as if it had been put in the place of the figure 9, or as if the figure 9 had been altered so as to assume the form of *saṁ*.

midî [or Andhra-Khimidî], **Vairâgara**, **Lañjikâ**, **Bhâṇâra**, **Talahâri**, **Daṇḍakapura**, **Nandâvalî** and **Kukkuṭa** annually paid tribute to him. The ruler of Chêdi here spoken of may have been either **Yaśaḥkarṇa** or **Gayakarṇa** of Tripurî; the ruler of Kanyakubja probably was **Gôvindachandra**,[10] and the ruler of Jêjâbhuktika the Chandêlla **Kîrtivarmadêva**.[11] Regarding Sômêśvara,[12] I am unable at present to offer any conjecture.

TEXT.[13]

1. Ôṁ namô Nârâyaṇâya ‖ Svasti | **Vaḍahara**-dêsâ(śâ)d=vinirgata-samadhigata-paṁcha-mahàsa(śa)bd-âbhinandita-suvarṇṇa-kalasôpar[14]-indragôpaka-saṁkàsa(śa)-chchha[nna]-nêtra-chivar-àlaṅkrita-patàkà-chihna-saṁyukta[ḥ]

2. **Paṁcha[ha]**[15]**nsa**-kul-ànuranjaka-śrì-[**Râ**]**jamâla**-kul-âmala-tilaka-ṭhakkura-śrî-**Sâhilla**-nâmâḥ ‖ Yêna[16] vai trasità[ḥ?][-ù(śû)]ràḥ bhûmipàlà mahà-raṇê | âdhipatyaṁ bhavêjyasya[17] vivarabhûmi[n]pà-[18]

3. rjjitê ‖ 1 ‖ Tasy=ânujô bhavêd=bhràtà **Vâsudê[vô]**[19] tath=àpi và | **Bhâyilaṁ** cha bhavêt=putraṁ **Dêsalaṁ** ch=àri-marddanaṁ ‖ 2 ‖ Tritîyaḥ **Svâmi**-nàmà cha ripavaḥ kshaya-kàriṇaṁ | tê-hàṁ **Bhaṭṭavilaṁ**[20]dê-

4. sa(śa)ṁ nîtaṁ vai pattanai[ḥ*] sahaḥ[21] ‖ 3 ‖ Punaı=nnavasa(śa)taḥ grâmâḥ shaṭpaṁchâsa(śa)[chchha ?]tâni cha | upârjjitaṁ **Viharâ**-[dê]sa(śa)ṁ paurushair=bhuja-vikramaiḥ ‖ 4 ‖ **Svâmi**-putrò mahâ-vîrô **Jayadêvô**=pi nâma[ta]ḥ[|*] pa-

5. [ncha]vinsa(ṁśa)sa(śa)taiḥ grâmaiḥ **Dâṇḍôraṁ** samupârjjitaṁ ‖ 5 ‖ Tathâ cha anujô[22]putrô **Dêvasiṁham**=anûpamaṁ | sârddha-saptasa(śa)tà yèna **Kômô** nîtaṁ cha maṁḍalaṁ ‖ 6 ‖ Vikshyâta[23]**Udayâ** dêvî ṭhakku[rà]jñî ma-

6. hô[da]yâ | satya-dharmma-ratâḥ[24] sà(śâ)ntà svakul-ânanda-varddhanî ‖ 7 ‖ Êbhiḥ putıô mahâ-vâ(ba)hô **Jagapâlô**=pi nâmataḥ[|*] saṁgrâm-àbhimukhâ yêna vimukhâḥ kshatriyâ[ḥ?] kritâḥ ‖ 8 ‖ **Mâyurikâ** mahâ-[sû(śû)]-

7. ràḥ **Sâvantâḥ** maṇḍal-êsva(śva)râ[ḥ*] | bhayàjyasya[25]pra[chaṇḍà ?]rê[ḥ*][pa]rvva[t-â]śrayaṇaṁ gatâḥ ‖ 9 ‖ Dhanvinô=pi yathâ Ràmô kshatriyaḥ-kula-marddanaṁ | tath=âyaṁ sa(śa)ra-saṁghàtaiḥ nihaṇyêd=ripu-vàhinî[ṁ] ‖ 10 ‖ Asvà(śvà)ruhô=

8. pi saṁgràmê vâraṇà nara-vâjinâ[26] | gatâs=tê pràṁmukhâ[jya][27]sya siṁghên=êva yathâ gajâ[ḥ*] ‖ 11 ‖ Nè[ṅg ?]illair(?)=vvàtha[28](?)charmmabhyâṁ khaḍga-pâ[ṇau[29]]r=mmaḥ-âhavê | nihaṇyêt=Sa(śa)kra-saṁghàtaṁ vîra[nêtrî(?)]yathâ raṇê ‖ 12 ‖

9. Śrî[30]-**Jâjalladêva**[31]-prabhu-ràjya-kàryê **Jagapâla**-nàmâ ripu-gandhahastî upârjji[tà[32]yêna(?)]suvîra-[vri]tyai[ḥ(?)-sa]ràthaṁsatêramaṁtamanâla[33](?)-desaṁ(śaṁ) ‖ 13 ‖ Śrî-**Ratnadêvaḥ**[34]-nripa-ràjya-kalê [si[35]]ndûramâ[h[36]]as-**Talahâri**-bhû-

---

[10] *ante*, Vol. XV page 6. [11] *ante*, Vol. XVI. page 202.

[12] Sômêśvara, the father of the Châhumâna Prithvîrâja who according to *Archæol. Survey of India*, Vol. XXI. page 174, conquered Jêjâkabhukti in A.D. 1172 appears to have died in A.D. 1169 (*Jour. Beng. As. Soc.* Vol. LV. Part I. page 15) and could therefore hardly have been defeated by Jâjalladêva before A.D. 1114.

[13] From the rubbing.

[14] Probably for *kalaśôparîndragôpaka-*.

[15] This *akshara* might possibly be read *ta*.

[16] Metre, Ślôka (Anushṭubh), here and below, except where otherwise specified.

[17] *i.e. bhavêd=yasya*; the sign for *ya* is quite distinct, and it is the same as in *vâyu*, line 9, and *rîpu*, line 10.

[18] There are many marks or scratches above and below *vivarabhû*, so that some of these *aksharas* may have been altered; the *akshara* given as *va* may possibly be *u*, for below, lines 4, 9 and 10, the *u* of *upârjjita* is denoted by the same or a very similar sign. I would suggest *vîra-bhûmy-upârjitê*, though this would offend against the metre. [19] Possibly altered to *vâ*.

[20] Possibly altered to *Bhaṭṭavilaṁ*.

[21] This sign for *visarga* may have been struck out already in the original.

[22] This may have been altered to *anujasya*.

[23] *i.e. vikhyâtâ*.

[24] This sign for *visarga* may have been struck out already in the original.

[25] *i.e. bhayâd=yasya*; see note 17 above.

[26] Probably intended for *nara-vâjinaḥ*.

[27] *i.e. pràṅmukhâd=yasya*.

[28] These *aksharas* are quite clear in the impressions; possibly *vàtha* may be a mistake for *dhanur*. But I do not understand the beginning of the verse, nor the end of it.

[29] The *akshara* in brackets has perhaps been altered to *ṇê*.

[30] This *Śrî* is perhaps preceded by a symbol for *ôṁ*.

[31] Metre, Upajâti, and of the following verse.

[32] Or, perhaps, *upârjitaḥ*; the following *yêna* is doubtful.

[33] All these *aksharas* are perfectly clear in the rubbing, but I cannot make out the name intended.

[34] This sign for *visarga* appears to have been struck out.

[35] Perhaps altered to *sa*.

[36] This may possibly be *ni*; I cannot make out the name intended.

10\. mau [।*] upârjjitau yêna suvîra-vrityaiḥ satyan=cha satyaṁ **Jagasiṁha-nâmaṁ**[37] ॥ 14 ॥ **Prithvîdêva-narêndrasya** râjyê ch=aiv=âdhikaṁ kritaṁ । durgamê[shu] mahâ-durgaṁ nîtaṁ **Saraharâgaḍha[ṁ]** ॥ 15 ॥ Tath[38]=âpi **Mavakâsiha[vâ]** cha durgaṁ punaḥ

11\. grihîtaṁ **Bhramaravadra**-dêsaṁ(śaṁ) । sva-vâ(bâ)hunâ vikramaṁ yêna sâdhitaṁ **Jagapâla**-nâmâ ripu-gandhahastî ॥ 16 ॥ **Kântâraṁ Kusumabhôgaṁ Kândâsê[hva(?)]ram**=êva cha । dêsaṁ(śaṁ) **Kâkayaraṁ** v=âpi nîtaṁ yên=â[tha] lîlaya ॥ 17 ॥ Parôksha-

12\. Râmadêvasya Râma-sô(śô)bhô=pi udvasaṁ[39][।*] **Jagapâlapuraṁ** jâtaṁ kritê dêsê(śê) punar=ṇṇavê ॥ 18 ॥ Kalau dharmmêshu Kauntêyô satyair= Jjîmûtavâhanaṁ[40] । vikramêṇa yathâ Râmô danê Bhânusut-ôpamâ[41] ॥ 19 ॥ Kshatrajñô[42] sa-

13\. tya-vaktâ cha dvija-dêv-âgni-pûjakaḥ[।*] purâṇ-âgama-sâ(śâ)strâṇâṁ śrôtâ vai bhârat âdibhiḥ ॥ 20 ॥ Râmâyaṇa-mukhâḥ sarvvê va[kt]â jîva-[dha]rô=pi cha । manîshî Brahma-vansê tu Bhâratî varadô=pi vâ ॥ 21 ॥ Î[dri][śa*?]-

14\. [ś=cha ?] bhavêt=puṁsô **Jagapâlô**=pi sundara[ḥ(?)] । Râma-so(śô)bhaḥ-sa[ṁ]kâsâ(śâ)-[rthaṁ(?)] prâsâdaṁ kâritaṁrimaṁ[43] ॥ 22 ॥ **Sâlmalî[ya]ṁ** nâma grâmaṁ naivêdyâya nivêditaṁ । [y]è cha bhûpâ bhavishyanti pâlayishyanti sarvvadâḥ ॥ 23 ॥

15\. S[th]âna-pati[r(?)]=yama-niyama-svâdhyâya-dhyân-ânushṭhâna-rataḥ bhagavantaḥ śrî-Mutkâtma[44]nâmaḥ ॥ tha[45] ॥ **Jagapâl**-ânujô bhrâtâ **Gâjalô**=pi dhanur-ddharaṁ । vikramî dushṭa-hantâ cha Sa(śa)kra-saṁgha-bhaya[ṅka]raṁ ॥ 24 ॥ Ta[tra(?)]

16\. prishṭh-ânujô jâ[ta]ḥ **Jaya[t?]siṁhô**=pi nâmataḥ [।*] Vibhatsasy=[46]ôpamaṁ vî[ra]ṁ dhanvinaṁ ripu-nâsa(śa)naṁ ॥ 25 ॥ Pradhanaṁ trishu[47] râ[jy]ê-hu[48] **Dêvarâjô**=pi nâmataḥ[।*] êbhis=tu paksha-saṁyôgaiḥ sâdhitân=cha vasundharâm ॥ 26 ॥

17\. Iti Ayôdhyâpurîy-ânvayê mahâmâhêsva(śva)ra-paramavaishṇavya-mahâpaṁ[ḍ]ita-ṭhakkura-śrî-Jasôdhara-putrêṇa dvija-dêva-guru-su(śu)śrûsh-âbhiratêna manîshiṇâ bhakti-bha[rtr]ânuranjakêna[49] maha-

18\. t-kavi-kiṁkirêṇa[50] lakshaṇêna vinâ[51]ṭhakkura-śrî-Jasânandêna kritâ prasa(śa)sti[ḥ][।*] Likhitâ [ch=ê]yaṁ rûpakâra-śrî-Ratnapâlêna utkîrṇṇ=âpi vâ ॥ **K[u]lachuri-saṁvatsar[ê] 896 Mâghê mâsi su(su)kla-**

19\. **pakshê rath-âshṭamyâṁ [V]u(bu)dha-dinê** likhitâ iti ॥ [52] ॥

---

[37] This sign for *anusvâra* may have been struck out

[38] Metre, Upendravajrâ.

[39] These three *aksharas* are quite plain: I should have expected some such word as *udvahat*

[40] Perhaps altered to *vâhanaḥ*.

[41] *i.e. sûpatmaja*

[42] Instead of this, I should have expected *Kritajñaḥ*

[43] This is intended for, and seems to have been altered to, *kritam=imam*

[44] *i.e. Mukta-nâma nâma.*

[45] The same sign for *tha* occurs occasionally at the end of chapters or whole works in Devanagari MSS., in place of the more common sign resembling *chha*. Both may originally have been intended as symbols for *ôm*. See the symbol for *ôm* used similarly *e.g.* in lines 72 and 73 of the Kauthem plates of Vikramaditya V., *ante*, Vol. XVI., page 23.

[46] *i.e. Bîbhatsasya* 'of Arjuna.'

[47] *i.e. trishu*

[48] This may be *râshtrêshu*.

[49] *i.e.* either *bhartri-bhaktêna*, or *bhartr-anurañjakêna*.

[50] *i.e. mahâkavi-kiṁkarêṇa.*

[51] The words *lakshaṇêna vinâ* are perfectly plain in the rubbings; I am unable to explain them.

[52] Between these stops there is a small drawing, the nature of which may be seen from the lithograph on Plate XX. of *Archæol. Survey of India*, Vol. XVII. Its middle portion may originally have been intended as a symbol for *ôm*, but the whole appears to be merely an ornamental full stop. A somewhat similar drawing we find at the end of the unpublished Jabalpur Chedi inscription of the year 926; and in lines 14 and 26 (exactly where we should expect to find full stops), and at the end of the inscription of Alhaṇadêvî, of the year 907 = A.D. 1155, a photolithograph of which is published in *Archæol. Survey of Western India*, No. X. page 107. And that this sign is not confined to Chedi inscriptions, is shown by the fact that it occurs also *e.g.* at the end of the Yâdava inscription of Śaka-Saṁvat 1063 = A.D. 1141, a photolithograph of which is published *ante*, Vol. XII. page 126, and the writing of which also in other respects shows a very remarkable resemblance to that of Alhaṇadevî's inscription.

MISCELLANEA.

CALCULATIONS OF HINDU DATES.

No. 8.

In this Journal, Vol. XVI. p. 109 ff., I have already referred to the date in the **Haidarâbâd copper-plate grant of the Western Chalukya king Pulikêsin II**, in which the details for calculation are—Śaka-Saṁvat 534 expired, the month Bhâdrapada (ordinarily August-September), the new-moon *tithi*, and an eclipse of the sun. And on that occasion **I arrived at the conclusion that the solar eclipse in question is that of the 23rd July, A.D. 613**.

This result, however, was in consequence of a mistake as to the English equivalent of the indicated current Śaka year, due to the manner in which the Tables[1] are arranged for expired years without any distinct intimation to that effect, and by no means confined to myself. As regards the record in question, Śaka-Saṁvat 534 expired, and 535 current, is really equivalent to A D. 612-613. In this period, there was an **eclipse of the sun[2] on the 2nd August, A.D. 612**; which was the new-moon *tithi* of Bhâdrapada according to the *Pûrṇimânta* northern arrangement of the lunar fortnights.[3]

Mr. Sh. B. Dikshit finds, however, by the *Sûrya-Siddhânta*, that the given *tithi* ended at 35 *ghaṭîs*, 46 *palas*, after mean sunrise, *i.e.* about 2 hours, 18 minutes, after mean sunset, at Bâdâmi,—the locality to which the record refers itself; and, consequently, that **this eclipse, occurring in the night, was not visible in India.**

Accordingly, it is doubtful whether the record really refers to the eclipse of the 2nd August, A.D. 612; or whether we have here a genuine instance of a mistake in the year that is quoted, and the eclipse that is really intended is that which occurred, fully visibly at Bâdâmi under very impressive circumstances,[4] on the 23rd July, A.D. 613, which date again, as shewn by me on the previous occasion, answers to the new-moon *tithi* of the natural Bhâdrapada according to the *Pûrṇimânta* northern arrangement of the lunar fortnights. This question must be settled when we can determine for certain whether invisible eclipses were, or were not, to be occasions of ceremonies and public acts.

But the point to which I have now to draw attention, is, that, whichever of these two eclipses we select as the one intended, **this record proves that, up to A.D. 612 or 613, and even in a particular part of Southern India, very far south of the river Narmadâ, the Pûrṇimânta northern arrangement of the lunar fortnights was used in connection with the years of the Śaka era.**

No. 9.

In a copper-plate grant of the Râshṭrakûṭa king Gôvinda III., from the Kanarese Country, the date (*ante*, Vol. XI. p. 126, line 1ff. and Plate) is—Śaka - nṛipa - kâl - âtîta - saṁvatsarangal êḷ-nûṟ=irpatt-âṟaṇêyâ Subhânu emba varshadâ Vaiśâkha-mâsa - kṛishṇa-paksha - pañchamî - Bṛihaspativâram âgi,—"when it is **Thursday,** the fifth *tithi* of the dark fortnight of the month Vaiśâkha (ordinarily April-May) **of the year called Subhânu,** which is the seven hundred and twenty-sixth (*of*) the years that have gone by from the time of the Śaka king."

Whether by the literal meaning of the text the given year, Śaka-Saṁvat 726, is indicated as current, or as expired, is not quite certain.[5] But correct results can be obtained only by taking it as an expired year.

Thus, by the Southern System of the Sixty-Year Cycle of Jupiter, the **Subhânu saṁvatsara** coincided with Śaka-Saṁvat 726 current. But, with the basis of Śaka-Saṁvat 725 expired, I find, from Prof. K. L. Chhatre's Tables, that Vaiśâkha kṛishṇa 5 of Śaka-Saṁvat 726 current, ended, by the *Amânta* southern arrangement of the lunar fortnights, on Saturday, the 15th April, A. D. 803, at about 58 *ghaṭîs*, 38 *palas*, after mean sunrise at Bombay; and, by the *Pûrṇimânta*

---

[1] *e.g.* those of Gen. Sir A. Cunningham's *Indian Eras*, and Mr. Cowasjee Patell's *Chronology*.—It is, under any circumstances, quite illogical to speak of, for instance, "Chaitra śukla 1 of, in, or belonging to, Śaka-Saṁvat 500," when the Śaka year is intended as an expired year. And it is particularly necessary to use the current Hindu years, when the object is to compare them with years of the Christian era, of which the current years are always quoted: leaving it to any one who has to calculate a date by Hindu Tables, to take the preceding expired year as the basis of the calculation. Owing to the customary arrangement of the Tables, there has been a general understanding that the epoch of the Śaka era is A.D. 78-79. And Dr Burnell even went so far as to write explicitly (*South-Indian Palæography*, p. 72, note) "the rough equation for converting this era into the Christian date is + 78¼. The beginning of the year being at the March equinox; if the Śaka *atîta* (i.e. expired) year be mentioned, the equation is + 79¼."—But the true epoch or year 0 of the Śaka era is A.D. 77-78; and A.D. 78-79, was its commencement or first current year (see a "Note on the Epoch and Reckoning of the Śaka Era," which will appear shortly in this Journal). We have to add only 77-78, to convert current Śaka years into current Christian years; and, by adding 78-79, what we obtain is the current Christian year equivalent to a given expired Śaka year.

[2] See *Indian Eras*, p. 210.

[3] See the Table, *ante*, Vol. XVI. p. 143.

[4] See the details given on the previous occasion.

[5] See my remarks at page 117 above on the use of *atîta* in the compound *Śaka-nṛipa-kâl-âtîta-saṁvatsarangal*.

northern arrangement, on Friday, the 17th March, at about 28 *ghaṭîs, 2 palas.*

With the basis, however, of Śaka-Saṁvat 726 expired, the given *tithi*, Vaiśâkha kṛishṇa 5 of Śaka-Saṁvat 727 current, ended, by the *Amânta* southern arrangement, on Friday, the 3rd May, A. D. 804, at about 49 *ghaṭîs, 37 palas*; but, by the *Pûrṇimânta* northern arrangement, **on Thursday, the 4th April, A.D. 804,** at about 15 *ghaṭîs, 45 palas.*

And this result is in perfect agreement with the name of the given *saṁvatsara*, **Subhânu.** For, though by the Southern System of the Cycle, if it had really been started at that time, the Subhânu *saṁvatsara* had expired before the resulting English date, yet, from some Tables drawn up by Mr. Sh. B. Dikshit, I find that **according to the so-called Northern System,** and the only really astronomical system, of the Cycle, **the Subhânu saṁvatsara commenced on the 17th June, A.D. 803,** which is in due accordance with the result from Varâhamihira's rule in the *Bṛihat-Saṁhitâ*, viii. 20, 21, that this *saṁvatsara* was current at the end of Śaka-Saṁvat 726 expired, *i. e.* at the commencement of 727 current:[6] and was followed by the Târaṇa *saṁvatsara* on the 12th June, A.D. 804. Therefore, **the Subhânu saṁvatsara was current on the given date, as recorded.**

Accordingly, **this record proves—(1) that, at any rate up to A.D. 804, even as far down in Southern India as the banks of the river Tungabhadrâ, to which locality the record refers itself, the Pûrṇimânta northern arrangement of the lunar fortnights was still used in connection with the years of the Śaka era;—and (2) that, up to the same date, and in the same part of the country, it is the Northern System of the Sixty-Year Cycle of Jupiter that was in use, at any rate, in connection with the years of the Śaka era.**

No. 10.

In the Sirûr stone inscription of the Râshṭrakuṭa king Amôghavarsha I., from the Dhârwaḍ District, the date *ante*, Vol. XII. p. 219, l. 15 ff. is—Śaka-nṛipa-kâl-âtîta-saṁvatsarangaḷ êḷ-nur-embhatt-entaneya **Vyayam** emba saṁvatsaram pravartise Śrîmad-Amôghavarsha-Nṛipatunga-nâm-ankitanâ vijaya-râjya-pravardhamâna-saṁvatsarangaḷ ayvatt-eraḍum uttar-ottaram râjy-âbhivṛiddhi salutt-ire . . . . **Jyêshṭha**-mâsad amaseyum **Âdityavâram** âge **sûrya-grahaṇad** andu,—"**when the saṁvatsara named Vyaya is current,** which is the seven hundred and eighty-eighth (*of*) the years that have gone by from the time of the Saka king; (*and*) while there is current, with perpetual increase of sovereignty, the augmenting year fifty-two of the victorious reign of him who is marked with the glorious name of Amôghavarsha-Nṛipatunga; . . . . when it is the new-moon *tithi*, and **Sunday,** of the month Jyêshṭha (ordinarily May-June); at the time of **an eclipse of the sun.**"

Here again, whether by the literal meaning of the text the given year, Śaka-Saṁvat 788, is quoted as current, or as expired, is not quite certain. But correct results can be obtained only by taking it as an expired year. Thus, in Śaka-Saṁvat 788 current (A.D. 865-66), there was no eclipse of the sun, on the given *tithi.* Also by the Southern System of the Cycle, **the Vyaya saṁvatsara** coincided with Śaka-Saṁvat 789 current (A.D. 866-67). And, by the Northern System, it commenced in Śaka-Saṁvat 788 current, on the 23rd September, A.D. 865, and was followed by the Sarvajit *saṁvatsara* in Śaka-Saṁvat 789 current, on the 20th September, A. D. 866; and thus, as will be seen, **by either system it was current on the given date,** the English equivalent of which is the 16th June, A. D. 866.

With the basis of Śaka-Saṁvat 788 expired, the given *tithi*, Jyêshṭha kṛishṇa 15, belonging to Śaka-Saṁvat 789 current, ended, by the *Pûrṇimânta* northern arrangement of the lunar fortnights, at about 1 *ghaṭî*, 49 *palas*, on Saturday, the 18th May, A. D. 866, when there was no eclipse of the sun; but, by the *Amânta* southern arrangement, at about 20 *gh.* 5 *p.* **on Sunday, the 16th June, A. D. 866, when there was an eclipse of the sun,**[7] which, as the *tithi* ended at about 2-2 P.M. (for Bombay), might be visible in India.

Accordingly **this record proves that, by A.D. 866, the Amanta southern arrangement of the lunar fortnights had been applied to the years of the Saka era, in Southern India, or at any rate in the particular part** of the country to **which this inscription belongs.** And a comparison of the results for the grant of Śaka-Saṁvat 727 current, No. 9 above, shews **that this change in the calendar was made between A. D. 804 and 866.**

As the Subhânu *saṁvatsara* was current on the given *tithi* according to both the Northern and the Southern Systems of the Cycle, this record

[6] From the use of Mr. Sh. B. Dikshit's Tables, I find that for the purposes of such rules as that of Varâhamihira the Saka years have to be treated as commencing with the *Mêsha-saṁkrânti*, and not with Chaitra śukla 1: though the latter is the initial day that is required for the notation of *tithis*.

[7] See *Indian Eras*, p. 212.

furnishes no evidence in that direction. But my impression is that further inquiries will shew that the Southern System of the Cycle is always coupled with the *Amânta* arrangement of the lunar fortnights; and the Northern System, with the *Pûrṇimânta* arrangement.

J. F. FLEET.

THE ACACIA OF PERSIA AND ARABIA.

Referring to note 797, Vol. IV. *Indian Notes and Queries*, regarding the magical properties of the *Acacia* :—when travelling in Southern Persia (between Kermân and Bender 'Abbâs) in 1879, I frequently had occasion to hear that the *keret*, a kind of **acacia** with dark leaves, was an **unlucky** tree. People who go to sleep under it are said to fall ill, or, according to some, will never wake up again. Another *acacia* with lighter coloured foliage and growing in the same neighbourhood, is called *kâhûr*, and considered healthy and lucky.

The medical dictionary *Makhzan-al-advîyeh*, s. v. *qarẓ* (Arabic), *keret* (Persian) says : "It is a fruit like that of the *umm-i-gheilân*, whose juice is called **âqâqîâ,** and is the gum arabic of commerce; the tree yielding the *qarẓ* is a thorn and some say that its leaves are the *salam* and its fruit the *ṣanṭ*, its wood is hard, and when old gets black like ebony, with whitish marks.[1] The people of India and Bengal use it for joinery. Its seed is like that of tamarinds, but smaller and green, getting red when ripe. Its flowers are white or yellow and sweet-scented. Its leaves and seed are used for tanning leather and are called *jelûd-al-qarẓ* (bark of *qarẓ*)." The *Burhân-i-qâṭa'* describes the *qarẓ* as a fruit resembling the Syrian *khartût* (a large kind of mulberry), but whiter and more insipid.

Aqâqîâ, from the Greek **'ακακια,** is according to the *Makhzan*, the juice of the *qarẓ*, the fruit of the *ṣanṭ* tree, and the gum arabic of commerce The *âqâqîâ* collected from the unripe fruit is red before drying and greenish after drying; that which is collected from the ripe fruit is blackish green and better than the other, also harder and heavier. The best way to obtain the gum is to collect the pods when ripe and to pound them into a mass, which is to be put over a gentle fire till coagulation sets in, when it is to be poured into forms and dried. Many people mix the juice of the leaves with that of the fruit and prefer to let the mass coagulate by the heat of the sun.[2]

Umm-i-gheilân, generally *mugheilân* in Persian, is the name of the tree which yields the gum arabic, it is the old *spina ægyptiaca*, a kind of *acacia*, probably the same as the *ṣanṭ*.

Ṣanṭ, also called *sumt*, the *shittah* of Scripture, originally *santah*, from Egyptian *shonte* or *shonti* (Gesenius), old *spina ægyptiaca, mimosa* or *acacia nilotica, acacia vera*, giving the gum arabic; it abounds in Egypt, Arabia and Syria. Its wood is very hard and almost imperishable and gets black, like ebony, with age; its fruit is the arabic *qarẓ*, hence *Bilâd-al-qarẓ*, the *qarẓ* country, Arabia Felix, from the number of trees growing there, the Persian *keret*. Other Acacias yielding gum arabic are *acacia serissa* of Egypt and *acacia veyal* of Egypt and Sinai.

A. HOUTUM-SCHINDLER.

Tehran.

A NOTICE OF THE CHEHAR MAQALEH.

The **Chehâr Maqâleh** (چهار مقاله) of Ahmed *bin* 'Umer *bin* 'Alî u'd-Nizâmî ul'Arûzî us-Samarqandî has just been published in lithograph at Tehrân: the colophon bearing A H. 1305 as the date of publication. This work owes its title to its division into four *maqâlehs*, or chapters. Four classes of men: *munshîs* (*dabîr*), poets, astrologers and physicians being indispensable to the well-being of a state, **Nizâmî-ul'Arûzî** wrote the present work, containing anecdotes of the most famous in each class, who preceded him, or who were contemporary with him. This work is much quoted by biographers of the early poets and philosophers. In it is the story of **'Umer Khayyâm,** in which he foretells that flowers shall be strewn over his last resting-place. Nizâmî-ul'Arûzî met Khayyâm in A.H. 506 at Balkh, and there heard him say that his tomb would be in a place where annually two falls of flowers would lie strewn on his grave. In A.H. 530 Nizâmî-ul-'Arûzî passed through Nîshâpûr and asked to be shown the resting-place of the great *rubâ'î* writer, whom he looked on as his master; and he was shown a place in the grave-yard by a wall, over which, from a neighbouring garden, a couple of fruit trees shed their blossoms, completely hiding the poet's last abode. Nizâmî-ul'Aruzi mentions A.H. 547, after this passage, as a year already past.

One of the earliest notices of this author and poet will be found in the very rare *Lubâb'ul-Albâb* of **Muḥammed 'Arifî,**[1] and therein is he placed amongst the poets of Mâverâ-un-nehr who panegyrised the Seljûqs. He was a panegyrist of the Gûrî *Amîrs*, of whom he mentions more particularly 'Alâ-ud-Dîn Abû 'Alî ul-Husain Bul-Ḥusain, in whose service and in that of his predecessors he had spent forty-five years. He is said to have travelled much, and to have been well

[1] *cf.* PLINY, xiii. 19.

[2] *cf.* PLINY, xxiv 67.

[1] Sprenger, *Oude Catalogue*, p. 4, No. 56

skilled both in Astrology and Medicine. In poetry he was the disciple of Amîr Mu'izzî. **Dolet Shâh**, in his *Tuzkereh* mentions the *Chehâr Maqâleh*; and adds that the poet also composed a metrical version of the romance of *Vais u Ramîn*. **Ḥamdu'llah Mustôfî** in his *Târîkh Engîdeh* (apparently copied in the *Habîb-us-Siyar*, Vol. II *Juz.* 4) mentions a *Majma'un-Nevâder* as also by him. In the *Haft Iqlîm* in the description of Samarqand, it is stated that he composed two prose works: the present work and the *Majma'un-Nevâder*. Ḥâjî Khalîfeh (Vol. II. p. 656) mentions the *Chehâr Maqâleh*, and in Vol. V. p. 405 also mentions the *Majma'un-Nevâder*. In this second notice he calls the author Nizâm-u'd-Dîn Abû'l-Ḥasan Aḥmed *bin* 'Umer *bin* 'Alî ul-Mekkî ul-'Arûzî us-Samarqandî. The *Sham'Anjuman* (p. 451) mentions both works. In the preface to the *Majma'ul-Fuseḥâ* of Rezâ Qulî Khân, the *Majma'un-Nevâder* is mentioned as one of the sources of that work. A notice of the poet will be found in the *Majma' ul-Fuseḥâ*, Vol. I. p. 635. The *Atash-kedeh* also contains a notice of the author of the *Chehâr Maqâleh*.

S. J. A. C.

THE BOOK OF THE FALCON.

Tîmûr Mîrzâ, the author of the work called the باز نامه **Bâz Nâmeh**, is better known to English readers as one of those concerned in the attempt to place his father, Ḥusain 'Alî Mîrzâ, Firmân-Firmâ, on the throne of Persia in succession to Fatḥ 'Alî Shâh. The attempt proving unsuccessful, Timûr Mîrzâ and his five brothers fled from Fârs to Baghdâd, and subsequently went on to Europe and England. One of the Princes, **Najef Qulî Mîrzâ**, wrote an interesting account of the events which followed the death of their grandfather, Fath 'Alî Shâh, and of their adventures in consequence. This work was translated into English, and printed in London by W. Tyler (undated), for private circulation only, in 2 volumes, under the Title: "**Journal of a Residence in England** of their Royal Highnesses Reeza Koolee Meerza, Najaf Koolee Meerza, of Persia; to which are prefixed some particulars respecting modern Persia and the death of the late Shah."

Tîmûr Mîrzâ, after thirty years' exile at Baghdâd, returned to Persia. Being a great sportsman he was in constant attendance at the shooting excursions of Nâsir-u'd-Dîn Shâh, the present ruler of Persia. No one knew better than he how to train and keep the different varieties of hawks used by the Persians in their hunting expeditions. The present treatise was written in A.H. 1285, and has been lithographed at Tehrân undated. Its author died on the 18th Rabî II, A.H. 1291.

S. J. A. C.

BOOK NOTICE.

ASIATIC RESEARCHES.—Popular Edition, Vol. II. Reprinted by BROJENDRO LALL DOSS, Calcutta, 1885-7, Royal 8vo, pp. 398.

We noticed the first volume of this convenient reprint *ante*, Vol. XV. p. 216, and expressed a hope, which we are sorry has not been fulfilled, that the numbers would be issued more frequently. Volume II., of which the first number was issued in September 1885, was only completed in January 1888. At this slow rate of progress the reprint is not likely to be of much use, nor will subsequent volumes find many subscribers. We trust the publishers will be able to expedite the issue of the rest of this reprint of a valuable and rather rare series of volumes. In the present handy and cheap form the work ought to be welcome to many persons, but its value is seriously injured by delays which will spread the reprint over a quarter of a century. The letterpress of Vol. II appears equal to that of the first volume, and faithful in every respect. The Tables which form pp. 157 and 158 in the original edition, have, however, been treated in a very clumsy manner. Although their reduction from the original size to the reduced scale of the reprint would have presented no difficulty of any sort, they have been reproduced in the same size as in the original; the result is cumbersome and unwieldy, and the entire volume is disfigured. The volume begins with the Fourth, Fifth and Sixth Anniversary Discourses delivered by the President in February 1787, 1788 and 1789; and includes papers read before and communications made to the Asiatic Society in Bengal, the earliest of which is dated 3rd March 1784, and the latest February 1790. The article numbered V (pp. 62-85), in which the President, Sir William Jones, describes his visit (on his way to India in 1783) to the "Island of Hinzuan or Johanna," one of the Comoro islands, is not a little curious. Davis's article, dated 15th February 1789, "On the Astronomical computation of the Hindus" (pp. 175 to 226), is still, we believe, worthy of study. An article of general interest is No. XVII., "an account of the Kingdom of Nêpâl," written by the Capuchin Father Joseph, Prefect of the Catholic Mission in that country, in which he resided several years about the middle of the last century.

METHODS AND TABLES FOR VERIFYING HINDU DATES, TITHIS, ECLIPSES, NAKSHATRAS, ETC.

BY HERMANN JACOBI, PH.D.; PROFESSOR OF SANSKRIT IN THE UNIVERSITY OF KIEL.

THE Tables[1] which are now placed before the public, are intended for the use of those who wish **to verify dates of Indian documents, inscriptions, manuscripts, etc.,** chronicled according to the intricate Luni-Solar Calendar of the Hindus. The working of these Tables will be found easy, requiring only the computation of a few figures; and the operation to be gone through is almost mechanical, and will yield correct results, if the rules, to be explained in the sequel, be strictly adhered to. Nevertheless, to render more intelligible the process of calculation, it will be well to place before the reader the frame and outlines of the Luni-Solar Calendar.

PART I.—ON THE LUNI-SOLAR CALENDAR.

On the Lunar Months, Pakshas, and Tithis in general.

A lunar month is the time of one lunation. It consists of two *pakshas*, or fortnights,—the bright (*śukla, śuddha*) fortnight, or the time of the waxing moon; and the dark (*kṛishṇa, bahula*) fortnight, or the time of the waning moon. In the North, the dark fortnight precedes the bright fortnight; in the South, it follows it. But the bright fortnight is always the same, both in the South and the North of India.[2] The lunar month takes the name of that solar month, in which occurs the true new-moon forming the commencement of the bright fortnight of the lunar month under consideration. The new-moon (the first if there are two) in solar Chaitra, (or Kârttika for some eras) forms the beginning of the luni-solar year. Each *paksha* is divided into 15 *tithis*. A *tithi* is the time required by the combined motions of the sun and moon to increase (in the bright fortnight) or to diminish (in the dark fortnight) their relative distance by twelve degrees of the zodiac. The names of the *tithis* are the Sanskṛit ordinals,—*prathamâ, dvitîyâ,* etc. The first *tithi* of either *paksha* is also called *pratipad* or *pratipadâ*: the last *tithi* of the bright fortnight is also called *pûrṇimâ*, as it ends with the moment of full-moon; and the last *tithi* of the dark fortnight, *amâvâsyâ*, as it ends with the moment of new-moon. The *tithis* furnish the names of the *civil* days, inasmuch as the civil day (being accounted to begin with true sunrise) is named after the *tithi* that *ends* in it. Thus, Màghè *ba di* 9 is the usual abbreviation equivalent to "the civil day in which ended the 9th *tithi* of the dark fortnight of the lunar month Màgha."

On Mean and True Lunar Months and Tithis.

The sun and the moon do not move with an even motion; *i.e.* they do not always move in the same time through the same space of the firmament. Yet, for the sake of calculation, it has been found convenient by astronomers to assume that the motion of all the heavenly bodies is proportional to time. This motion is called the *mean* motion, to distinguish it from the *true* motion.

The place in which the sun or moon would be, if they had the *mean* motion, is called their *mean* place. In the same way, *mean* lunations and *mean tithis* are spoken of. But, in the Hindu Calendar, only *true* lunations and *true tithis* are used; *i.e. true*, not as would be found by actual observation, but as calculated according to the astronomical theory of the *Siddhântas*. A *mean* lunation, or lunar month, is about 29 days, 13 hours; while the *true* lunar month varies in length between 29 days, 49 minutes, and 30 days, 1 hour, 15 minutes. The duration of a *mean tithi* is about 23 hours, 37 minutes; that of a *true tithi* varies between about 20 and 26 hours. It is very easy to

[1] Tables 5 to 11 are constructed on the plan of those of Largeteau, first published in the "Connaissance des temps" for 1846. By the Tables of Largeteau, the true place of the moon in relation to the sun can be found with a high degree of accuracy according to the lunar and solar theories of modern astronomy. In order to make the Tables of Largeteau serve our purpose, a part only of them could be used. The rest had to be altered according to the elements and theory of the *Sûrya-Siddhânta* as will be explained at the end of this paper. I have to thank Dr Peters, Professor of Astronomy in Kiel, now in Königsberg, with whose kind assistance I have come to a thorough understanding of the construction of Largeteau's Tables.

[2] Compare the scheme, *ante*, Vol. XVI. p. 143.

calculate a *mean* date; but it is of course more difficult to find the *true* one.

On Intercalary and Expunged Months.

It sometimes happens that *two* new-moons occur in one solar month: all solar months being longer than 29 days, 40 minutes; some by more than one or two days; some by a fraction of a day only. In that case there will be, accordingly, two lunar months of the same name: of these two months the first is considered as the intercalated (*adhika*) month of that name, the second as the proper one (*nija*); or, in Northern India, the *adhika* month is inserted between the two *pakshas* of the *nija* month.

On the contrary, occasionally there occurs *no* new-moon within one solar month: in that case, the lunar month, synonymous with the solar month in question, is altogether omitted (*kshaya*); or else, according to Warren, the name of that month is compounded with that of the following one.

Example.—If new-moon occurs on, or between the limits of, the first and last days of the *solar* Kârttika, there will be two *lunar* months Kârttika; the first of which is *adhika* Kârttika, the second *nija*. On the contrary, if no new-moon occurs in the *solar* Pausha, there will be no *lunar* Pausha in that year; Pausha being in that case an expunged or *kshaya* month.

On Repeated and Expunged Tithis.

If two *tithis* end on the same civil day, that *tithi* which both begins and ends on that same day, is accounted to be expunged (*kshaya*), that is to say, though in the strict lunar reckoning the *kshaya tithi* is extant, yet in the *civil* reckoning, which is the only one used for dating, it is neglected. For instance, if, of the *tithis* 11, 12, 13, the 12th ends on the same day with the 11th, that day is called the 11th according to the usual rule; but the following day is called the 13th; the 12th *tithi* being expunged, and there being no day to take the number of it. If, on the other hand, a *tithi* begins on one day runs over the next, and ends on the next but one, that day on which no *tithi* ends, takes the same number as the preceding day, which is thus repeated (*adhika*). For instance, if the 12th *tithi* began on one day and ended on the next but one, the corresponding days will be numbered 11, 12, *adhika* 12, 13.

It will be obvious that we cannot speak of repeated and expunged *tithis*, unless we understand by *tithi* the civil day corresponding to a *tithi*. Nor of repeated and expunged *days*, unless we mean by it the number given to the day by the *tithi*. Intercalation or expunction does not affect the week-days, which run on continuously uninterrupted.

On Solar Months.

From the preceding definitions, it will be evident that, in order to convert a luni-solar date into one of the English calendar, we must ascertain :—

(1) The space of time corresponding to the eponym solar month :—

(2) The day on which the new-moon occurred within that space of time ;—

(3) The day on which ended that *tithi* after which the day given in the Hindu date is named.

The last two questions can be accurately answered with the help of Tables 5 to 11; the first approximately only. But, in most cases, an approximate answer to the two first questions will be sufficient. Only where it is doubtful whether there was an intercalary month,—*i.e.* when the new-moon falls on the approximate initial day of the solar month indicated by our lunar Tables,—the exact limits of that solar month should be ascertained by Tables 1 to 4[3] To ascertain the exact time of the solar months, four Tables are wanted, one for each of the four years of our intercalary cycle: which Table applies, is shown by the superscription of those Tables. They give, under the name of each solar month, the year A.D. in which the initial date of that month advanced by one day. The corresponding English date will be found by adding, to the date written immediately below the name of the solar month, the number of days found in the first (or last) column on the same horizontal line with the year in question. Thus, we find, *e.g.*, by Table 2, that in A.D. 574 the solar Vaiśâkha began on the 20th March (Old Style). The 20th

[3] These Tables give the same result as Warren's Tables I, III, and V. They are based on the *Ârya-Siddhânta*

March continued to be the initial day of Vaiśâkha till A.D. 690, for all years which, divided by four, leave as a remainder 2. The day thus found is, however, the *civil* beginning of the solar month, the day on which the astronomical beginning of the month, *i.e.* the *Saṁkrânti*, or entrance of the sun into a zodiacal sign, is usually celebrated. The *true instant* of the beginning of a solar month occurred, in any year entered in the Table, at or shortly after sunset of the day *preceding* the civil beginning of the solar month of that year; every four years it advances by 50 minutes. For example, the solar Vaiśâkha in A.D. 574 began astronomically on the 19th March at sunset in Laṅkâ, or 12 hours Laṅkâ time; and in A.D. 622, which year is separated from 574 by 48 (*i.e.* 12 × 4 years). 12 × 50 minutes = 10 hours later, *i.e.* on the 19th March, 22 hours, Laṅkâ time. The moment thus found is some minutes later than the true one, but this degree of accuracy will be found sufficient. The astronomical limits of the solar month are wanted for determining the name of the lunar months in cases where the true new-moon occurs near those limits. The initial days of the *solar* months are also the days of *saṁkrânti*; 1st Vaiśâkha, that of Mêsha; 1st Jyaishṭha, that of Vṛishabha; and so on (see at the foot of Table 7). The 1st Mâgha is the first day of the *uttarâyaṇa*, or the period during which the sun is moving from south to north; and the 1st Srâvaṇa, that of the *dakshiṇâyana*, or the period during which the sun is moving from north to south.

PART II.—USE OF THE TABLES.

Description and Explanation of the Tables.

In Tables 5 to 8, the value of four quantities, *a*. *b*. *c* *d*., for different periods is given: *e.g.* in Table 5 we find that in A.D. 1801 (on the 1st January) $a = 5138$, $b = 566$, $c = 6$, $d = 479$. For calculating *tithis*, however, only *a*. *b*. *c*. are wanted; and we shall therefore, for the present, speak of *a*. *b*. *c*. only.

The quantity *a*. (plus the constant quantity 200)* gives the *mean* lunations expressed in 10,000th parts of the unit; or the difference of the mean longitudes of the sun and the moon expressed in 10,000th parts of the circle. And the value $a = 5138$ denotes that, at the moment in question, 0·5338 of the current *mean* lunation was gone.

b and *c*. give, in thousandth parts of the unit, two other quantities on which depends the difference of the *true* longitudes of the sun and moon,[5] which we shall denote by *A*. With *b*. and *c*. turn to Tables 9 and 10; there, for the value of *b*. and *c*. as arguments, is given the equation which, added to *a*., gives *A*.; *e.g.* for *b*. 566, we find by Table 9, as equation, 84; for *c*. 6 we find, by Table 10, as equation, 58. Adding 84 and 58 to $a = 5138$, we get $A = 5280$. The value of *A*. shows which *tithi* was current at the moment under consideration, as presented in the following table:—

Sukla-paksha.			
1 Tithi; *A*. is between	1	&	333
2 ,, ,, ,,	334	,,	666
3 ,, ,, ,,	667	,,	1000
4 ,, ,, ,,	1001	,,	1333
5 ,, ,, ,,	1334	,,	1666
6 ,, ,, ,,	1667	,,	2000
7 ,, ,, ,,	2001	,,	2333
8 ,, ,, ,,	2334	,,	2666
9 ,, ,, ,,	2667	,,	3000
10 ,, ,, ,,	3001	,,	3333
11 ,, ,, ,,	3334	,,	3666
12 ,, ,, ,,	3667	,,	4000
13 ,, ,, ,,	4001	,,	4333
14 ,, ,, ,,	4334	,,	4666
15 ,, ,, ,,	4667	,,	5000
Full-moon; *A*. = 5000			

Krishna-paksha.			
1 Tithi; *A*. is between	5001	&	5333
2 ,, ,, ,,	5334	,,	5666
3 ,, ,, ,,	5667	,,	6000
4 ,, ,, ,,	6001	,,	6333
5 ,, ,, ,,	6334	,,	6666
6 ,, ,, ,,	6667	,,	7000
7 ,, ,, ,,	7001	,,	7333
8 ,, ,, ,,	7334	,,	7666
9 ,, ,, ,,	7667	,,	8000
10 ,, ,, ,,	8001	,,	8333
11 ,, ,, ,,	8334	,,	8666
12 ,, ,, ,,	8667	,,	9000
13 ,, ,, ,,	9001	,,	9333
14 ,, ,, ,,	9334	,,	9666
15 ,, ,, ,,	9667	,,	10000 or 0
New-moon; *A*. = 0 or 10000			

* 200·5 has been subtracted from the exact value of the *mean* lunation, in order that all corrections to be applied to it for finding the value of the *true* lunation shall be *additive* quantities, and not additive in one case, and subtractive in another.

[5] *b*. is the mean anomaly of the moon; and *c*. the mean anomaly of the sun.

A. = 5280 denotes, therefore, that, at the moment in question, the first *tithi* of the dark fortnight was current.

In Tables 5 to 7, the column superscribed *w.* contains the figures 0 to 7, which serve to find the day of the week, as will be shown below.

Table 5 gives the values of *a. b. c. d.* for all the years of the 19th century. If the year in question is not contained in the 19th century, the corresponding year of the 19th century has to be taken; *i.e.* the year of the 19th century which is separated from the given year by complete centuries. To find the corresponding year, add the last two figures of the given year to A.D. 1800; *e.g.* the corresponding year of A.D. 484 is A.D. 1884.

Table 6 gives the values of *a. b. c. d.* for the centuries intervening between the given year and the corresponding one of the 19th century. To find them, subtract the given year from the corresponding year of the 19th century; *e.g.* A.D. 1884 — 484 = 14 centuries.

Table 7 gives the value of *a. b. c. d.* for the hour 0 or sunrise at Laṅkâ, of all days of the English year, and the three first months of the next year. The days of the month are entered in two columns. In the first twelve subdivisions of Table 7, for January to December, the first column applies to common years, and the second to leap-years. In the continuation of this Table for the following year, the arrangement is different. In January and February, the first column applies if the English year, preceding that to which these months belong, was a common year; the second, if it was a leap-year. In March, the second column applies if the English year, in which that month occurred, was a leap-year, or followed after a leap-year. The first column applies to the remaining years of our intercalary cycle. These last three Tables are to be used for the last part of the Hindu year: *viz.* for that part of the Hindu year which falls in the English year following that in which the beginning of the Hindu year fell. Table 8 gives the values of *a. b. c. d.* for hours and minutes.

All the quantities taken from Tables 5 to 8, are to be summed up in due order; then the equation of the sum of *b.* and that of the sum of *c.* (Tables 9 and 10), are to be added to the sum of *a.* The result will be the *A.* for the moment in question, which is to be interpreted according to the *tithi* Table.

An example will set this in a clearer light. Let it be asked, what *tithi* was current on the 21st June, A.D. 484. We have

		w	*a*	*b*	*c*
Table 5	A.D 1884	(3)	765	746	2
Table 6	14 cent. ...	(5)	4626	734	67
Table 7	21 June ...	(4)	8245	242	471
	Leap year.				
		(12)	3636	722	540
Table 9	arg. *b.* 722, eq. =		3		
Table 10	arg. *c.* 540 eq. =		76		
	A. =		3715		

As *A.* is between 3667 and 4000, it follows from the *tithi* Table that the 12th *tithi* of the bright fortnight was current.

The Week-Day can be found from the sum of *w.* 12 (put in brackets). *Rule*:—If *w.* is smaller than, or equal to 7, the number indicates the week-day, counting from Sunday as 1. If *w.* is larger than 7, retrench 7; if larger than 14, retrench 14. The remainder, in both cases, indicates the week-day, counting from Sunday as 1. In our example *w.* = 12; subtract 7; remainder, 5 = Thursday.

If it be required to know when the 12th *tithi* ended, subtract 3715 from 4000; the remainder is 285. With this remainder, 285, apply to Table 11, in order to find approximately the difference in time between the time when *A.* was = 3715 and when it was 4000. We find 200 = 14 hours, 10 minutes; 85 = 6 hours, 1 minute; so, 285 = 20 hours, 11 minutes; therefore the 12th *tithi* ended about 20 hours, 11 minutes, after sunrise in Laṅkâ.

If this approximation should not be considered sufficient, we add to the above found sums of *a. b. c.*, the value of *a. b. c.* for 20 hours, 11 minutes, from Table 8. We have found:—

	a	*b*	*c*
21st June A.D. 484 ...	3636	722	540
20 hours (Table 8) ...	282	30	2
11 min. ,, ...	3	0	0
	3921	752	542
arg. *b.* 752	0		
arg. *c.* 542	76		
A. =	3997		

The difference between 4000 and 3997 being 3, shows (by Table 11) that the end of the *tithi* occurred 13 minutes after 20 hours, 11 minutes; or at 20 hours, 24 minutes, after sunrise at Laṅkâ.[6] Therefore, as the 12th *tithi* ended on the 21st June, A.D. 484, that day was *śu di* 12.

If we want to know the name of the month of which the 21st June, A.D. 484, was the *śu di* 12, we count 12 days back from the 21st June: the day obtained, the 10th June, was the beginning of the month; and, accordingly, the preceding day, the 9th June, was the day of new-moon, always supposing that there was no *kshaya* or *adhika tithi* between new-moon and *śu di* 12. Now, turning to Table 4, we find that the 9th June, A.D. 484, falls in the middle of the time assigned for the solar Âshâḍha (20th May to 20th June). Therefore, as the new-moon of the same month to which the *śu di* 12 under consideration belonged, fell within the solar Âshâḍha, we conclude that the 21st June, A.D. 484, was *śu di* 12 of the lunar month Âshâḍha.

On the Verification of Luni-Solar Dates.

Having shown how the Tables are worked, I shall now explain how, by their help, the most usual problem, that of converting a luni-solar date into one of our Calendar, can be solved.[7]

Let us suppose we had to verify the date A.D. 484, Âshâḍha *śu di* 12, Thursday. We first compute the *a. b. c.* for the beginning of A.D. 484, *viz.*:—

		a.	*b.*	*c.*	
1884 ...	(3)	765	746	2	Table 5.
14 cent.	(5)	4626	734	67	Table 6.
A.D. 484	(8)	5391	480	69	

On the day *śu di* 12, *A.* must be near, but something less than, 4000 (such being the equivalent for the end of the 12th *tithi*). Subtracting 5391 from 4000, or, as this would leave a negative quantity, from 14000, we have, as the remainder, 8609. Therefore, by adding 8609 to the *a.* of the beginning of A.D. 484, we get 4000; and all days, whose *a.* is 8609 or the next lower figure, are approximate dates for each *śu di* 12, the whole year round.

In the same way, by subtracting the *a.* for the beginning of A.D. 484, *viz.* 5391, from 10000, *i.e.* the equivalent of the new-moon, the remainder, in our example 4609, indicates approximately all the new-moon days of A.D. 484.

Now, with 4609, we turn to Table 7. Finding Âshâḍha at the foot of May, we select the days in May and June, whose *a.* is nearest to 4609. A.D. 484 being a leap-year, we find the 11th May and 10th June. We must now ascertain which of these two dates determines the beginning of the lunar Âshâḍha *śukla paksha*. This can be done with the help of Tables 1 to 4, as explained above; or, without using these Tables, the beginning and end of the *solar* months can be found in the following way:—At the foot of the Table we find that, on 1st *solar* Âshâḍha, *c.* is about (*i.e.* one smaller or larger than) 450. The *c.* of the beginning of A.D. 484 is 69. Adding 69 to the *c.* of the 11th May, 359 + 69 = 428. This (428) being lower than the *c.* for 1st solar Âshâḍha, we conclude that the new-moon, occurring on the 11th May, fell in the solar Jyaishṭha, and belonged, therefore, to the lunar month Jyaishṭha. Trying the 10th June, we find its *c.* to amount to 444 + 69 = 513. As this is between the *c.* for 1st Âshâḍha, *viz.* 450, and the *c.* for 1st Śrâvaṇa, *viz.* 536, we conclude that the new-moon occurring on the 10th June, or thereabouts, belongs to the lunar month Âshâḍha. Hence Âshâḍha *śu di* 12 must be later, by about 12 days, than the 10th June.

We have seen that, at the end of the 12th *tithi*, *a.* is equal to, or something less than, 8609. The 22nd June having for *a.*, 8583, which is nearest to 8609, the end of the 22nd *tithi* must have occurred either before or after the beginning of the 22nd June. To find the end

[6] Mr. Sh. B. Dikshit (*ante*, Vol XVI. p. 120) has calculated the same moment according to the modern Tables of Chhatre, the *Sûrya-Siddhânta*, and the *Siddhânta-Śiromani*. He found,—Chhatre, 48 *ghaṭis* 12 *palas*; *Sûrya-S.* 51 *gh.* 11 *p.*, *Siddh-Śir* 53 *gh.* 21 *p.* Converting 20 hours, 24 minutes, into *ghaṭikâs* and *palas* we get as the equivalent amount 51 *gh.* Our result, therefore, agrees nearly with that calculated by Mr. Dikshit on the basis of the *Sûrya-Siddhânta*.

[7] As, by our Tables, only those Hindu dates can be converted into English ones, of which the concurrent English *year is known*, we are here concerned with the verification of the day only. However, in practice, the year will often be doubtful. In such cases, all years which come in question must be tried till that one is found in which the day fits in all particulars. Instead of calculating the date for all possible years, it will save time if we try the years according to the approximative method (Perpetual Lunar Calendar) which will be explained below.

of the *tithi*, we must add the *a. b. c.* of the 22nd June to the *a. b. c.* of the beginning of A.D. 484.

		a.	*b.*	*c.*
A.D. 484 (see above)	(8)	5391	480	69
22nd June	(5)	8583	278	474
	(13)	3974	758	543

arg. *b.* 758 0
arg. *c.* 543 76

A. = 4050

A. being larger than 4000, the end of the 12th *tithi* must have occurred before the beginning of Friday, the 22nd June. Table 11 shows that our surplus, 50, is equal to 3 hours, 33 minutes. Hence the 12th *tithi* ended on the 21st June (at about 20 h. 27 m.), and accordingly A.D. 484, Âshâḍha *śudi* 12, was the 21st June.

It should be borne in mind that the time of any particular instant is reckoned from the mean sunrise at Laṅkâ. For any other place in India, two corrections are necessary:—

(1) The difference in time between the place in question and the meridian of Laṅkâ (on which lies Ujjain, 5 h. 3 m. 27 s. east of Greenwich), is to be added to or substracted from the result found by my Tables, according as that place lies east or west of the said meridian. Table 15 serves for converting Laṅka time into local time, for the principal places in India as explained in the note to that Table.[8] For instance:—if a *tithi* ended at Laṅka at 10 h. 54 m., it ended in Calcutta at 11 h. 44 m., in Multan at 10 h. 37 m. If the place under consideration is not contained in my List, take the most important one that is nearest to it.[9]

(2) The time at which the sun, at that place and on that day, rose before or after the completed sixth hour after mean midnight of that place.

The amount of this correction, for any given place and time, can be calculated with the help of Table 16. That Table shows how many minutes before or after sunrise at Laṅkâ (0 hour of my tables) the day began at places situated on the meridian of Laṅkâ or Ujjain at a Northern latitude of 5 to 30 degrees, on the days entered in the first and last columns of the Table. For places and days not entered in the Table, the amount may be calculated by a proportion. But it must be stated that the date may be wrong by one or two days.

The process by which we have obtained the result may be reduced to the following rules:—

1. Find the *a. b. c.* of the given year, by summing up the quantities for the corresponding year and the intervening centuries.
2. Find the Index of the new-moon days by subtracting from 10000 the *a.* of the given year.
3. Find the Index of the given *tithi*, by adding its equation (from the *tithi* Table) to the Index of new-moon.
4. Find the new-moon falling in the given solar Hindu month, by adding to the *c.* of the given year, the *c.* of the new-moon days in the English months corresponding to the given solar Hindu month. The footnote of Table 7 shows which new-moon day is to be selected. In doubtful cases determine the limits of the solar month, from Tables 1 to 4.
5. Try the day indicated by the Index of the *tithi*. If *A.* comes out larger than the equivalent of the proposed *tithi* (see *tithi* Table), it ended before sunrise; if smaller, after sunrise.
6. Apply the corrections due to the geographical site of the place, if necessary.

2nd Example.—In order to give a sample of the calculation, we shall convert into the corresponding English date, A.D. 1261, Jyaishṭha *badi* 4, Gurau. I give the calculation without further remark:—

[8] This Table was suggested by Mr. Fleet, on the [illegible] that, in the majority of instances, the details [illegible] should be worked out, not for the actual place [illegible] for the principal [illegible] the neighbourhood [illegible] for the town at which [illegible] taken [illegible] actually prepared. I have substituted the [illegible] in time to the longitudes given by him, which [illegible] from Thornton's *Gazetteer of India*.

[9] The difference in time is obtained by multiplying the degrees of the difference of the longitudes of Ujjain and the different places by four. However, the amount thus found may differ in many cases from that assumed by the Hindus. The latter might easily be ascertained if some one would collect, from different places in India, old native almanacs or *Pañchâṅgs*. But they must refer to an epoch not yet influenced by modern geographical science. By these means it would be easy to draw a map of India as it appeared to the Hindus themselves.

		a.	b.	c.
A.D. 1861...	(3)	6257	896	4
6 Cent	(4)	2876	135	47
A.D. 1261...	(7)	9133	31	51
20th May ...	(6)	7070	45	381
	(13)	6264	76	432

arg. b. 76 — 204
arg. c. 432 — 35

● $a = 10000 - 9133 = 867$.
4th Tithi kṛishṇa paksha (1) 6333-9133 or $6333 + 867 = 7200$

● Jyaishṭha about 1st May $a = 636$: $c = 329 + 51 = 380 > 364$.
4th Tithi a 7200 about 20th May : $a = 7070$.

$A. = 6503 - 6333 = +170$ (or $100 = 7$ h. 5 m., $70 = 4$ h. 58 m.) 12 h. 3 m. before 20th May.

The 4th *tithi* of the *kṛishṇa paksha* ended on the 19th May, which was a Thursday, about 11h. 57m.

3rd Example.—I select the following date because its calculation offers matter for some consideration:—

Vikrama-Saṁvat 1288, Phâlguna *śu di* 10, Wednesday.

The year commenced in A.D. 1231; but the month Phalguna fell in 1232. We can make either year the basis of our calculation, as will be seen in the sequel.

1st method; by starting from the English year in which the Hindu year *began*; *viz.* 1231. We proceed as in the above examples:—

A.D. 1831 ..	(7)	5528	213	4
6 Cent.	(4)	2876	135	47
A.D. 1231 ..	(11)	8404	348	51

● 1596. *śu di* 10 $(1596 + 3333) = 4929$.

The new-moons which come in question are to be looked for in January and February. But there are two Januaries and two Februaries in our Table 7. In this case, the Tables for the January and February at the end of Table 7 apply; those at the beginning of Table 7 applying to the same months of the preceding Christian year, *i.e.* to that part of A.D. 1231 which precedes the Hindu year. It will be seen that new-moon fell on the 24th January and 23rd February (or the preceding day), as the *a*. of these days is nearest to, but smaller than, 1596 (the index of new-moon). On the 24th January, the *c*. is $62 + 51 = 113$, which is near the *c*. required for Phâlguna, *viz.* 114. It is therefore doubtful whether the lunar month, determined by the new-moon of the 24th February, is Mâgha, or Phâlguna. Turning to the 23rd February, we find $c. = 195$; *i.e.* it is near the *c*. required for 1st solar Chaitra (196.) Hence it is likewise doubtful whether a new-moon on the 23rd February inaugurated the month Phalguna or Chaitra.

In order to fix with more definiteness the beginning of Chaitra, we must have recourse to Table 4 (for the date in question falls in the leap-year, A.D. 1232).

We find that the solar Phâlguna ran from the 25th January to the 23rd February, astronomically from 24th January 13 h. 40 m. to 23rd February 8 h. 50 m. As will be remembered, we have only approximately determined the dates of new-moon; we must now calculate them accurately.

A.D. 1231	8404	348	51
24th Jan.	1389	81	62
13 hours.	183	20	1
40 min.	9	1	0
	9985	450	114

arg. 450 — 184
arg. 114 — 20

$189 = 13$ hours, 23 minutes

Accordingly new-moon occurred 13 h. 23 m. before solar Phâlguna, and belonged therefore to Mâgha. We calculate 0 Chaitra :—

A.D. 1231...	8404	348	51
23rd Feb. ...	1548	169	144
8 hours	127	14	1
50 min.	12	1	0
	91	532	196

arg. 532........ 112
arg. 196........ 2

205 = 14 hours, 31 minutes.

Accordingly, new-moon occurred 14 h. 31 m. before 0 solar Chaitra, and belonged therefore to Phâlguna. In order to find *śu di* 10, we proceed, as usual, by adding, to the *a. b. c.* of A.D. 1231, the *a. b. c.* of that day after the 22nd February, the *a.* of which is next below 4929 (or the index for *śu di* 10).

A. D. 1231 ...	(11)	8404	348	51
3rd March. ...	(0)	4596	496	169
	(11)	3000	844	220

arg. *b* 844, eq............24
arg. *c* 220, eq............ 1

A. = 3025 = 1 h. 46 m.

As *A.* for *śu di* 10 is between 3000 and 3333, we see that the 10th *tithi* was running at the beginning of the 3rd March. That it ended in the same day, is evident from the fact that the *a.* of the 4th March, *viz.* 4935, is, by itself, larger than the index for *śu di* 10, which we have found to be 4929, and will become still more so by adding the equations of *b.* and *c.* Let us calculate also the 4th March :—

A.D 1231 .,	8404	348	51
4th March ..	4935	532	171
	3339	880	222

arg. *b.* 880, eq. ...44
arg. *c.* 222, eq. ... 1

A. = 3384

Subtract 3333; the remainder 51 = 3 h. 37 m. Hence the 10th *tithi* ended 3 h. 37 m. before sunrise at Laṅkâ, on the 3rd March, which was a Wednesday, as required. The end of the 10th *tithi* being near the beginning of the day, we must now consider whether the result may be influenced by the geographical position of the locality to which the record belongs: *viz.*, Girnâr being about 21 minutes (of time) west of the meridian of Laṅkâ (or Ujjain), the day begins there about 21 minutes later than on the meridian of Ujjain. Hence the 10th *tithi* ended about 3 h. 58 m. before the end of the 3rd March. Again, the sun rises, before the 21st March, later on the circle of latitude of Girnâr, than on the equator, on which Laṅkâ is supposed to be situated. The difference still more removes the end of the 10th *tithi* from the end of the 3rd March, as compared with the same moment at Laṅkâ. The date, as we have found it, stands, therefore, proof against all doubts which can be raised against it. As regards the week day, the (11) shows that it was the fourth day or Wednesday as required.

2nd method. In calculating the date, we can also start from A.D. 1232, the Christian year in which the date fell. But, in that case, we must make use of the first part of Table 7. We shall sum up the figures for the 3rd March A.D. 1232 :—

A.D. 1832 ...	(1)	9128	460	3
6 Cent	(4)	2876	135	47
3 March	(6)	995	250	170
	(11)	2999	845	220

Comparing this result with that found above, we see that *a.* is smaller, *b.* larger, by one, than found above.[10] This difference is caused by our neglecting fractions below ½, and counting them as 1 if larger than ½.

4*th Example*.—An intercalary month. As a month is intercalated when two new-moons occur within one solar month,—one soon after the beginning, and the other shortly before the end, of the solar month,—all that is required to decide any case, is, to calculate the phase of the moon on the beginning and the end of the solar month. If the moon was waning at the

[10] The last method must be followed in cases in which the Hindu year begins in Kârttika (Sept.-Oct.), and the date in question is later than March of the succeeding English year

beginning, and waxing at the end, of the solar month, a month was intercalated.

In the year 958 of the Chêdi era, which has been identified with A.D. 1207 (the *Academy*, 14th January, 1888) there was an intercalary Âshâḍha. We must first ascertain the astronomical limits of solar Âshâḍha from Table 3. In A.D. 1199 Âshâḍha began on the 26th May, Laṅkâ time 12 hours; accordingly in 1207, *i.e.* 2 × 4 years afterwards, 2 × 50 minutes = 1 hour 40 minutes later, or on the 26th May, 13 h. 40 m. Again, in A.D. 1231 solar Śrâvaṇa began (or Âshâḍha ended) on the 26th June, at 12 hours; accordingly in 1307, *i.e.* 19 × 4 years afterwards. 19 × 50 min. = 15 h. 50 m later, or on the 27th June, at 3 h. 50 m.

We calculate *A.* for both instants:—

A.D. 1807..	7080	81	4
6 Cent......	2876	135	47
A.D. 1207...	9956	216	51
26th May ...	9102	262	397
13 hours ...	183	20	1
40 min. ...	9	1	0
	9250	499	449
arg. 499	140		
arg. 449	41		
A. =	9431		

A.D. 1207 ..	9956	216	51
27th June ...	9938	424	485
3 hours	42	5	0
50 min.	12	1	0
	9948	646	536
arg. 646	28		
arg. 536	74		
A. =	50		

This calculation shows that the beginning of solar Âshâḍha occurred before, and the end after, new-moon (*A.*= 0 or 10000), *i.e.* two new-moons fell within solar Âshâḍha. Accordingly there was an intercalated lunar Âshâḍha as required.

5th Example.—A *Saṁkrânti*:—

Śaka 1126 (A.D. 1204) Pausha *śu di* 2, Saturday, at the *uttarâyaṇa*.

The *uttarâyaṇa* begins with the solar Mâgha. That month began, according to Table 4, in A.D. 1204, on the 25th December. Our calculation stands thus:—

A.D. 1804	(1)	5940	306	4
6 cent. ...	(4)	2876	135	47
25 Dec. ...	(2)	1569	29	983
	(7)	385	470	34
arg. 470		166		
arg. 34		47		
		598		

Accordingly the 25th December was a Saturday, its *w.* being 7; and, the second *tithi* ending in it, it was Pausha *śu di* 2, as required.

Before leaving this part of our subject, I will add a few remarks that may prove useful. It is obvious that every lunar date can be converted into the corresponding English one; but such lunar dates only can be *verified*, *i.e.* shewn to be correct notations of real and particular moments of time, which are coupled with some other chronological item not purely or chiefly derived from the position of the moon. In most cases the concurring notation will be the week-day. As the verification of the week-day is a much simpler process than, and can be done simultaneously with, ascertaining the date of the *tithi*, it will save time to calculate at once the correct week-day. Let us do so with our first example. We have found (8), 5391, 480, 69, as the (*w.*) *a. b. c.* of the 1st January, A.D. 484. As the figure (8) of the week-day is above 7, subtract 7, and put (1) instead of

(8). The 22nd June has been found to be the approximate day of Âshâḍha *su di* 12. But the *w.* of the 22nd June is (5), which added to (1) from above makes (6) or Friday, instead of Thursday as required in the inscription. We therefore calculate the 21st June as the probable date of *śu di* 12. The result proves that we have guessed rightly. But if the *tithi* does not come out as required, we can, without further calculation, say that the *date* is *wrong*; provided we have singled out the correct month and *paksha* and overlooked no *adhika* month. For, say that, instead of the 12th *tithi*, the 11th would be found running at sunrise of the corresponding week-day, in that case the next day would be the 12th (or, if the 12th *tithi* was *kshaya*, the 13th), but the week-day would be wrong. In the assumed case, the date would be wrong, either because the inscription was a forgery, or because the scribe committed a blunder.

Correction due to the Moon's Latitude.

Probably common almanac-makers neglected this correction, which influences the result only when the end of a *tithi* occurs within a quarter of an hour off the beginning of the day. *Rule*:—Add to the tenth part of *a.*, 20 + the half part of *d.* If the sum is above 500, subtract 500; the remainder is the Index for the following Table. If it is below 500, the remainder itself is the Index. The equation is according to its sign, to be added to or subtracted from *A*.

Index.	*Equation.*		*Index.*
from 0 to 10 or „ 240 „ 250	0	0	from 250 to 260 or „ 490 „ 500
„ 20 „ 30 or „ 220 „ 230	-1	+1	„ 270 „ 280 or „ 470 „ 480
„ 40 „ 70 or „ 180 „ 210	-2	+2	„ 290 „ 320 or „ 430 „ 460
„ 80 „ 170	-3	+3	„ 330 „ 420

On Mean Intercalations.

It is highly probable that in ancient times mean intercalations were used, *i.e.* a month was intercalated when two mean lunations fell within one mean solar month. As the mean lunation is smaller than the mean solar months, there could be no expunged months while mean intercalations were used. My Tables give the moment of mean new-moon with great accuracy. Mean new-moon happens when the sum of *a.* + 200 = 0 or 10000. But the beginning of a mean solar month is less accurately defined by *c.*, which remains unchanged for many hours. The increase of *c.* in a mean lunar month being 80·89, and in a mean solar month 83·33, it follows that a mean intercalation is due when, at the time of mean new-moon, *c.* is equal to, or larger by one or two than, the *c.* required for the beginning of the given mean solar month, as shown in the following Table:—

Vaiś.	286	Bhâdr....	619	Paush....	952
Jyai.	369	Âśvi. ...	702	Mâgh. ...	36
Âsh.	452	Kârtt. ...	786	Phâlg....	119
Śrâv.	536	Mârg. ...	869	Chaitr. ..	202

However, the calculation gives not absolutely reliable results; for it is just possible that, instead of the month that is actually obtained the preceding or the next one was intercalated.

On Eclipses.

The *d.* of my Tables gives the equivalent for the distance of the sun from the nodes of the moon's orbit. The amount of *d.*, therefore, shows whether, on the days of new-moon and full-moon, a solar or lunar eclipse was likely to occur. For any other days but those of new-moon or full-moon, *d.* is of interest for chronological purposes only when the correction for the moon's latitude is to be adhibited as explained under the Correction due to the Moon's Latitude.

The occurrence of an eclipse is ascertained by the following rules:—

At new-moon a solar eclipse is	certain	if *d.* is between	924	and	1000,	or	0	and	76.
	doubtful	„ „ „ „	894	„	924,	or	76	„	106.
	impossible	„ „ „ „	106	„	894.				
At full-moon a lunar eclipse is	certain	if *d.* „ „	950	and	1000,	or	0	and	50.
	doubtful	„ „ „ „	930	„	950,	or	50	„	70
	impossible	„ „ „ „	70	„	930.				

Example.—Was there a lunar eclipse in Srâvaṇa, A.D. 1144 ?

	a.	*b.*	*c.*	*d.*
A.D. 1844	3352	526	3	97
7 cent......	4345	585	50	822
A.D. 1144	7697	111	53	919
17 July, l.y.	7049	186	542	142
	4746	297	595	61
eq. *b.*	274			
eq. *c.*	95			
A. =	5115			

● $a = 10000 - 7698 = 2302$. 2nd July (*c* 554) new moon Srâvaṇa

○ $a = 2302 + 5000 = 7302$.

Full-moon occurred about 8 h. 13 m. before the beginning of the 17th July; or on the 16th July, about 15 h. 47 m. The increase of *d.* in eight hours being 2, 2 must be retrenched from 61. The remainder is 59. Therefore, as 59 falls within the limits of a doubtful lunar eclipse, it is likely that there was a small lunar eclipse; as will be found to be the fact by referring to the "Canon of Eclipses," the great work of Oppolzer (Denkschriften der Kaiserl. Akademie der Wissenschaften in Wien 1887, which has superseded the "L'art de vérifier les dates," from which is extracted Cunningham's List of Eclipses in his *Indian Eras.*) The example just given shows at once the advantage and the disadvantage of my method. The advantage consists in this,—that by the same calculation we come to know the moment of new-moon or full-moon, and whether at the time a solar or lunar eclipse has happened or not The disadvantage consists in leaving some cases doubtful. The latter is especially the case with solar eclipses. For, our calculation does not show whether an eclipse of the sun was *visible* in India, even if the sun was, at the time of the eclipse, above the horizon.[11] But an eclipse of the moon is visible wherever the moon is above the horizon of the observer; *i.e.*, wherever the eclipse of the moon occurs at night To conclude,—if one of the above-named works on eclipses is available, they should be used in preference to the approximate calculation. But, if no other means are at hand, this calculation, which is an ingenious device of M. Largeteau, will be found useful.[12]

[11] For calculating such or any other particulars connected with solar eclipses, the reader is referred to Schram's Tables (Denkschriften d. K. A. d. W. Wien 1886) which are supplementary to the "Canon of Eclipses." With the help of these two works all problems referring to eclipses can now be solved by an easy calculation.

[12] It must be remarked, that eclipses, especially solar ones, instanced in historical documents, were, in many cases, not actually observed eclipses, but calculated ones. For the smaller solar eclipses, if not calculated beforehand, would pass unobserved; since even the larger ones (say up to 7 degrees) are seen only under favorable circumstances, as when the sun is setting or rising, or is seen through a fog or thin cloud There-fore eclipses mentioned in inscriptions are generally to be interpreted as calculated, not as actually observed As the result of a calculation of an eclipse varies with the different Siddhântas, and as it is correct only for a period within a few centuries off the composition of the Siddhânta used, it will be safest to identify the eclipses mentioned in inscriptions with such as actually occurred but keeping in mind the eventuality that, within or near the limits of a *possible* eclipse, the Hindus may have predicted an eclipse when none did occur or *vice versâ*.

On Karaṇas.

"Half the portion of a *tithi* is established as that of the *karaṇas*," (*Sûrya-Siddhânta*, ii. 69). There are, therefore, 60 *karaṇas* in one lunar month. Their names and numbers are given in the following table :—

Kiṁstughna...	1
Bava	2, 9, 16, 23, 30, 37, 44, 51,
Bâlava	3, 10, 17, 24, 31, 38, 45, 52,
Kaulava	4, 11, 18, 25, 32, 39, 46, 53,
Taitila	5, 12, 19, 26, 33, 40, 47, 54,
Gara	6, 13, 20, 27, 34, 41, 48, 55,
Baṇij	7, 14, 21, 28, 35, 42, 49, 56,
Vishṭi	8, 15, 22, 29, 36, 43, 50, 57,
Śakuni	58,
Nâga............	59,
Chatushpada..	60.

As we know how to calculate a *tithi*, we shall have no difficulty in verifying a *karaṇa*. For instance, suppose it be stated in a document,—*śu di* 5, in the *karaṇa* Bâlava. Bâlava, the tenth *karaṇa*, ended at the same moment with the 5th *tithi* ; being in fact the latter half of it. We therefore calculate, as explained above, the end of the 5th *tithi*. The *karaṇa* in question was the time of about 11 to 12 hours preceding the moment found by our calculation for the end of the 5th *tithi*.

On Nakshatras and Yôgas.

The *nakshatra*, in which the moon is at any given moment, can, by the help of my Tables, be found with sufficient accuracy. The *yôga*, an astrological element, will be found by the same operation required for the *nakshatras*. We treat, therefore, of the *nakshatras* and *yôgas* at the same time.

Rule for finding the Nakshatra.—From the *c.* of the date in question subtract 279·4 augmented by the tenth part of the equation of *c.* If *c.* is smaller than the sum to be subtracted, add 1000 to *c.* (This is the true longitude of the sun expressed in thousandth parts of the circle). Add to this, the tenth part of *A.* for the date in question. The result, taken as Index, shows, by Table 17, the *nakshatra* in which the moon is at the given moment.

Rule for finding the Yôga.—Add to the result, just found, the true longitude of the sun, calculated according to the above rule ; the sum indicates as Index the *yôga*, current at the moment in question, by the same Table.

Example.—Find the *nakshatra* and *yôga* for sunrise on the 11th May, A.D. 1824 :—

A.D. 1824	9646	416	3		
11 May ...	4361	754	359		
	4007	170	362		+ 279·4
				$\frac{1}{10}$ eq. *c.*	1·3
eq. *b.*	263				
eq. *c.*	13				280·7
A. =	4283	—	280·7		
		Long. of ⊙	81·3		

428 + 81, = 509, Index of *nakshatra*, *viz.* Chitrâ
509 + 81, = 590, Index of *yôga*, *viz.* Siddhi.
And in the *Ravi-Pañchâṅgam* (Warren's *Kala-Sankalita*, p. 317) we find that, on the 11th May, A.D. 1824, the moon was in the *nakshatra* Chitrâ, and that the *yôga* Siddhi continued for 5 *ghaṭis* after sunrise.

If it is required to know more accurately the beginning of a *nakshatra* or *yôga*, the Table for Differences must be applied. For instance, we found 590 as Index of the *yôga*. Subtracting 590 from 594 (the beginning of Vyatîpâta), we get as the remainder 4. The Table for Differences shows that the △ 4 is equal to about 2 h. 27 m. Accordingly, the *yôga* Vyatîpâta began about 2 h. 27 m. about 6 *ghaṭis* after sunrise at Laṅkâ.

This calculation is not very accurate, as an error of one unit in the Index makes a difference of above half an hour. But, for chronological purposes, this degree of accuracy will be all that is wanted.

There is also another method of reckoning *yôgas* in use, for the particulars of which the reader is referred to Colebrooke, *Miscellaneous Essays*, Vol. II. p. 363 (new edition, p. 319).

In some inscriptions (e.g. *ante*, Vol. XII. pp. 18, 254,) the *nakshatra* is mentioned together with the date. But, on calculating the date, I have found that the *nakshatra* in which, by my method, the moon must have been at that time, does not agree with the *nakshatra* given in the inscription. Nor does the week-

day come out right. It is therefore doubtful whether the dates of those inscriptions are correct. But I find that the date in Vol. XII. p. 258, is correct when calculated for the time of full-moon.

PART III.—THE PERPETUAL LUNAR CALENDAR.

Many chronological questions can be more readily solved if the whole lunar year, together with the corresponding English year, is exposed to our view. However, this cannot be done without a sacrifice of accuracy; *i.e.* we must rest satisfied with approximate results. Where no more than such an approximation is wanted, the Perpetual Lunar Calendar, exhibited in Table 12, will be found useful. In Table 12, every day is entered with a Roman cypher, the Epact, and one of the seven letters *a.* to *g.*, the Dominical Letter. To begin with the latter, the **Dominical Letters** serve to show on what day of the week fell any given date of any year, in which the week-day of one date is known. For instance, let us suppose that, in a certain year, the 5th March was a Wednesday. As the 5th March has the Dominical Letter *a.*, we know at once that all days having the same Dominical Letter *a.*, were Wednesdays. What were the week-days of the remaining Dominical Letters, will be found by the subsidiary Table 12, which needs no explanation. If no week-day is known from other sources, the week-day of the 1st March, or the value of the Dominical Letter *d.*, can easily be found by help of Table 14, which gives the value of the Dominical Letter *d.* from A.D. 0 to 2000, Old Style. The **Epacts** are arranged in such a way, that the same phase of the moon approximately occurred throughout the English year and the first four months of the next, on all days having the same Epact. For instance, if of some given year the 10th March, having the Epact X., was the day of a new-moon, a new-moon occurred on all days having the Epact X., throughout the year, *i.e.* on the 9th April, 8th May, etc. As the initial date of the lunar month immediately follows the day of new-moon, the initial day of all lunar months will be found by adding one to the Epact of the new-moon day of the year under consideration. As Cunningham's Table XVII. gives the initial day of the luni-solar years, the date taken out from that Table serves to find the beginning of all lunar months. But Cunningham's dates are, in many cases, apt to mislead; for they are calculated for mean midnight of Ujjain; whereas, in civil reckonings the days are accounted to begin with sunrise. Therefore, if the mean new-moon falls between midnight and sunrise, Cunningham couples it with the following day, whereas, actually, it belonged to the preceding one. Hence a fourth part of Cunningham's dates is a day too late. To find with perfect accuracy the date of mean new-moon, my Tables may be used thus,— Add 200 to the *a.* of the corresponding year, then add the *a.* for the intervening centuries. Subtract the *a.* thus found from 10000. The remainder is the *a.* on which the mean new-moon occurred throughout the whole year. For instance, in A.D. 1468 we have 10000—(1800 + 200 + 9936) = 10000—1936 = 8064. Hence, mean new-moon occurred, *e.g.*, late on the 23rd March, as that day has the next lower *a* (7768). and Chaitra *śudi* 1 fell, *i.e.* ended, on the 24th March. For the reasons stated above, Cunningham gives the 25th March for the beginning of the luni-solar year.

However, without reference to the Tables, the day of new-moon in March can be found for any given year, and, at the same time, for a good many years preceding and following it, by Table 13.

The second Part of this Table gives the date in March on which new-moon occurred in the years A.D. 304 (0) to 379 (75); the fraction gives the complete quarters of the day, after which the conjunction took place. The same dates, in the same order, are valid for the next 76 years, but a quarter of a day must be subtracted from each; after 152 years two quarters must be subtracted; after 228 years, three quarters, and after 304 years (in A.D. 668 etc.) a complete day must be retrenched from the date found.[13]

[13] The correctness of these rules can easily be demonstrated by the above Tables. The difference of the relative positions of the sun and the moon after 76 years, is found by subtracting the *a* of A.D. 1801 (5138) from that of A.D. 1876 (5222). The remainder 84 is nearly equal to the fourth part of the increase of *a* for one day 339 = 85. In 304 years it amounts to 335 instead of 339, which would be the increase of *a* for one complete day. Our error, therefore, is about 20 minutes in 304 years; and even in the 19th century the error is only 1 h. 25 m., which may be neglected without any practical consequences.

Therefore, to find the date of new-moon in March for any year, *e.g.* A.D. 1468, subtract from it the next lower figure under I. in Part the first (1216), and put down apart the subtractive quantity in parenthesis (—3 ; see Table 13, example). From the remainder (252) subtract, if it is greater than 76, the next lower figure under II. of Part the First (228) and put apart the subtractive quantity. The second remainder (24) is to be looked out in Part the Second in the column *y*. From the date thus found (27¼), subtract the sum of the subtractive quantities (3¾) set apart ; the result will be the date of mean new-moon in March for the year in question. By adding or subtracting 14¾ we get the day of mean full-moon. Augment the date of new or full moon by *one*, to find the Epact of the beginning of the *śukla* or *krishṇa* [illegible]. If the Epact turns out to be above 30 deduct 30 from it, to find the correct Epact. Knowing the beginning of the month, it will be easy to verify, approximately, any day of it, by counting onwards, making the *śukla* [illegible] consist of 15 days, and the *krishṇa* *paksha* of 14 days and 15 days alternately, as done by Cunningham. The result, thus arrived at, is the same as that arrived at by Cunningham's method, if the initial day of the year falls in March. If it falls in February, there is sometimes a difference. For, if the date to be verified falls in a series of 30 Epacts, my date will be one day earlier than Cunningham's date ; but if the date falls in a series of 29 Epacts, Cunningham's method and mine yield the same result.[14]

It remains to ascertain the names of the Indian months, the initial days of which are indicated by the Epact as explained above. The name of the lunar month depending on the solar month in which new-moon occurred, all that is required, is, to know on which days the solar months commenced. This information is furnished by the following arrangement of my Table 12. The names of the solar months are placed above those of the English months in such a way that the first part of the Sanskrit name is written above the latter part of the English name of that English month in the *later* part of which (below the horizontal stroke) the solar Hindu month commenced.[15] For instance, the solar Śrâvaṇa begins in June and ends in July. The initial date of the solar month is marked by a number (4 to 19) placed between the Epact and the Dominical Letter. These numbers indicate the century A.D. in which, approximately, the solar month commenced on the day marked by the number of the century : thus Śrâvaṇa, in A.D. 600 to 700, began on the 23rd June, that day being marked by 6.

It will be noticed that January and February in the large Table, and March and April in the Continuation-Table, have two columns ; one is to be used for common years, and the other for leap-years, as indicated by the headings of the column.

An example will set the application of my Table in a clear light. On what day, in A.D. 807, fell Pausha *śu di* 1 ? Cunningham's Table XVII. gives as the initial date of the Hindu year, Sunday, the 14th March. This day is marked XIVc. in my Table. The Epact XIV. occurs in December, on the 5th ; this day is Pausha śu di 1, because it fell in the solar Pausha which in A.D. 700 to 800 ran from the 23rd November to the 22nd December, as indicated by the number 7 placed after the Epact of those days. The 5th December has the Dominical Letter *c.*, just as the 14th March, which was a Sunday. Therefore, in A.D. 807, Pausha *śu di* 1 fell on Sunday, the 5th December.

An additional advantage of my method, as will have been remarked, is, that no regard is taken of intercalary or expunged months intervening between the initial day of the Hindu year and the date to be verified.

I conclude with a practical hint. If a list of eclipses is at hand, some new and full moons of every year may be taken from it. For the day of a lunar eclipse is, of course, a full-moon day, and a solar eclipse coincides with new-moon. Taking the Epact of the date of an eclipse, may serve to check a result arrived at by starting from the initial day of the Hindu year as given in Cunningham's Table XVII.

[14] If Cunningham's date differs from mine, both are [illegible] approximations only.

[15] In the more recent centuries preceding our time the beginning of the solar month has shifted to the first part of the next Christian month.

PART IV.—THE CONSTRUCTION OF TABLES 5 to 11.

As stated above, my Tables are those of M. Largeteau, adapted to the doctrines and elements of Hindu astronomy, especially those of the *Súrya-Siddhánta.* The inaccuracy of the elements of Hindu astronomy becomes perceptible in calculations for long intervals of time: but, if the interval of time is only a few years, the result of the Hindu calculation may be considered correct for all practical purposes. Therefore Table 7, which gives the increase of *a. b. c.* for the 366 days of the year, could be adopted from the original Tables, without any change beyond omitting two columns not wanted, and adding one, *w.*, for finding the weekday. But Tables 5 and 6 had to be entirely recalculated. I shall explain how this was effected, in order to show that my Tables must yield correct results.

The epoch of Hindu astronomy is the beginning of the Kaliyuga; according to the *Súrya-Siddhánta*, at midnight, at Laṅkâ, of the 17th-18th February, Old Style, B.C. 3102. As the civil day is usually reckoned to begin with sunrise at Laṅkâ, the beginning of the Kaliyuga according to the *Súrya-Siddhánta* may be stated as B.C. 3102, 17th February, Old Style, 18 hours, Laṅkâ time. (According to the *Árya-Siddhánta*, the Yuga began 6 hours later, or on the 18th February, 0 hour, Laṅkâ time.) At that epoch, according to the *Súrya-Siddhánta*, the mean moon and sun were in the initial point of the Hindu zodiac; the longitude of the moon's perigee was 9 signs; and the sun's perigee was practically at the same place as at present, *i.e.* 257° 17′ of the initial point of the Hindu zodiac. Accordingly *a.* or the difference of the mean longitudes of the sun and the moon, was *nil.* But we must subtract the constant quantity 200·5 by which the difference of the longitude of the sun and the moon is diminished, in order that the equations of *b* and *c.* may be always additive, and not additive in some cases, and subtractive in others.

Hence, *a.* was 10000 − 200·5 = 9799·5.

b. or the moon's mean anomaly, was 90° = 0·250 of the circle, or in my notation 250.

c. or the sun's mean anomaly, was 102° 52′, or in my notation 285·8

Instead of starting from this epoch and adding the increase of these quantities for the time elapsed between the epoch and the given date, as would be more in accordance with the practice of the Hindus, we start from the 1st January of the corresponding year of the 19th century, for the hundred years of which the value of *a. b. c.* had to be calculated. Suppose the correct value of *a. b. c.* for the corresponding year to be known, the same for the given year can be found, by subtracting the increase of *a. b. c.* for the complete elapsed centuries. But to convert the subtractive increase into an additive quantity, we subtract the increase from 1. and add the remainder. This remainder is entered in Table 6 as *a. b. c.* In the way thus explained, the *a. b. c.* for the 1st January of any year can be found. For any other date, we add to the *a. b. c.* for the 1st January the increase up to the given day as registered in Table 7.

According to the rules just laid down, we will now calculate the *a. b. c.* for the beginning of the Kaliyuga, the amount of which quantities has been specified above according to the *Súrya-Siddhánta.*

The corresponding year of B.C. 3102 (beginning of the Kaliyuga) is A.D. 1899, the interval being 5000 years. Adding to the *a.* of Kaliyuga 0, the increase of *a.* in 5000 Julian years, we get the *a.* for A.D. 1899, 17th February, 18 hours, Old Style, or 1st March, 18 hours, New Style. Our Tables serve, however, for the inverse problem; thus, we start from *a.* for A.D. 1899, and add to this, *a.* for 5000 years, and *a.* for the 1st March, and *a.* for 18 hours. The two last positions are equal to the increase of *a.* for 59·75 days. Now we have the proportion:—As the synodical revolution of the moon in a Yuga is to the increase of *a.* in 5000 years, so the days in a Yuga are to the days in 5000 years; *viz.*—

$$\text{increase of } a = \frac{1826250 \times 53433336}{1577917828} = 61842{\cdot}6562$$

in 5000 Julian years.

Hence, increase in 1000 years is 12368·53126, and increase in 100 years is 1236·853126. In the same way the increase of *a.* in 59·75 days will be found to be 2·023326.

Now rejecting complete revolutions, and subtracting the fraction from 1, the remainder is to be used as *a.* for 5000 years, *viz.* 3437·2, *a.*

for 1000 years, *viz.* 4687·4; *a.* for 100 years, *viz.* 1468·7.

Our calculation will be as follows :—

A.D. 1899 ...6129
5000 years ...3437·2
59·75 days......233·26

Kaliyuga 0... 9799·46

The difference from 9799·5 being smaller than can be expressed in my Tables, the calculation has proved that the *a.* for A.D. 1899 is correctly given.

From the *a.* of A.D. 1899 the *a.* for the remaining years of the 19th century was found by subtracting the increase of *a.* for the interval between A.D. 1899 and the particular years, rejecting the fraction, or counting it as 1, according as it was less or greater than a half. The *a.* in Table 6 was found as stated above. But, for 3 and more centuries, the increase of *a.* for 12 complete days, 4064, is to be added on account of the difference between the Old and the New Style: *e.g.* 10 cent. = 4687 + 4064 = 8751.[16]

In an analogous manner was found the *b.* of Tables 5 and 6. The proportion holds:—As the anomalistic months in the Yuga are to the increase of *b.* in 5000 years, so the days in the Yuga are to the days in 5000 years; *viz.*—

increase of *b.* $= \frac{1826250 \times 57265133}{1577917828} = 66277·5056$

in 5000 Julian years.

Hence the increase in 1000 years is 13255·5011; in 100 years, 1325·5501; and in 59·75 days, 2.1684. And *b.* for 5000 years is 494·4; for 1000 years, 498·9; and for 100 years, 149.9. Therefore, as above :—

	b.
A.D. 1899	587·2
5000 years	494·4
59·79 days	168·4
Kaliyuga 0	25[illegible]

Accordingly *b.* for A.D. 1899 is 587·2. But, as the fraction is smaller than ½, we reject it.

The remaining operations are the same as with *a.*[17]

For determining *c.* we say:—As the anomalistic revolutions of the sun in the Kalpa is to the increase of *c.* in 5000 years, so the days in the Kalpa are to the days in 5000 years; *viz.*—

increase of c. in 5000 Julian years $= \frac{1826250 \times 4319999613}{1577917828000} = 4999·8796.$

Hence the increase in 1000 years is 999·9759; in 100 years, 99·9976; in 59·75 days, 0·1636; and *c.* for 5000 years is 120·4; for 1000 years 24·1; and for 100 years, 2·4.

Therefore, as above :—

	c.
A.D. 1899	1·8
5000 years	120·4
59·75 days	163·6
Kaliyuga 0	285·8

Accordingly *c.* for A.D. 1899, *viz.* 2, is too large by only 0·2.

Tables 9 and 10 are calculated according to the rules of the *Sûrya-Siddhânta*, on which we need not enter here.

Possible Error.

As in the Tables fractions are neglected or counted as 1, according as they are less or larger than ½, the absolute error in every quantity may amount to ± 0·5. Usually the plus and the minus of the different figures will compensate for each other; but in extreme cases the neglected fractions may sum up to ± 2·5 or ± 3·5, according as five or seven figures are summed up to find *A.*, and the error in time will be 10 or 14 minutes respectively. In the same way, the error in the sums of *b.* and *c.* may mount up to ± 1·5 or ± 2·5, according as three or five figures are summed up. But the effect of these errors on the equations of *b.* and *c.*, and through them on *A.* is not the same, but can be ascertained in every case, generally, it is very small.

[16] In the way indicated Table 6 may easily be extended beyond the limits I have chosen, which were selected because the calendar now in use was not introduced before that time.

[17] Some centuries ago a *bîja* or correction was introduced, by which the *c.* of Table 5 would be diminished by 5. This correction should be applied to dates of the last three or four centuries.

TABLE 1.

Initial Dates of Hindu Months.

THE YEAR DIVIDED BY 4 LEAVES REMAINDER 1.

add days	Vaiś.	Jyai.	Âsh.	Śrâv.	Bhâdr.	Âśvi.	Kârtt.	Mârg.	Paush.	Mâgh.	Phâlg.	Chaitr	add days
	18 Mar.	17 Apr.	19 May.	19 June.	21 July.	21 Aug.	20 Sept.	20 Oct.	19 Nov.	18 Dec.	17 Jan.	15 Feb	
1	489	381	449	381	441	437	385	397	453	413	505	413	1
2	605	497	565	497	557	553	501	513	569	529	621	529	2
3	721	613	681	613	673	669	617	629	685	645	737	655	3
4	837	729	797	725	789	785	733	741	801	761	853	761	4
5	949	845	913	841	605	901	845	857	913	873	965	873	5
6	1065	957	1029	957	1017	1013	961	973	1029	989	1081	989	6
7	1181	1073	1141	1073	1133	1129	1067	1089	1145	1105	1197	1105	7
8	1297	1189	1257	1189	1249	1245	1183	1205	1261	1221	1313	1223	8
9	1413	1305	1373	1301	1365	1361	1309	1317	1377	1337	1429	1333	9
10	1525	1421	1489	1417	1481	1477	1421	1433	1489	1449	1541	1449	10
11	1641	1533	1605	1533	1593	1589	1537	1549	1605	1565	1657	1565	11
12	1757	1649	1717	1649	1719	1705	1653	1665	1721	1681	1773	1681	12
13	1873	1765	1833	1765	1825	1821	1769	1781	1837	1797	1885	1797	13

TABLE 2.

Initial Dates of Hindu Months.

THE YEAR DIVIDED BY 4 LEAVES REMAINDER 2.

add days	Vaiś.	Jyai.	Âsh.	Śrâv.	Bhâdr.	Âśvi.	Kârtt.	Mârg.	Paush.	Mâgh.	Phâlg.	Chaitr.	add days
	18 Mar.	17 Apr.	19 May.	19 June.	21 July.	21 Aug.	20 Sept.	20 Oct.	19 Nov.	18 Dec.	17 Jan.	15 Feb.	
1	462	354	422	354	414	410	358	366	426	386	478	386	1
2	574	470	538	466	530	526	470	482	538	498	594	498	2
3	690	586	654	582	642	638	586	598	654	614	706	614	3
4	806	698	770	698	758	754	702	714	770	730	822	730	4
5	922	814	882	814	874	870	818	830	886	846	938	846	5
6	1038	930	998	930	990	986	934	942	1002	962	1054	962	6
7	1150	1046	1114	1042	1106	1102	1046	1058	1114	1074	1170	1074	7
8	1266	1162	1230	1158	1218	1214	1162	1174	1230	1190	1282	1190	8
9	1382	1274	1346	1274	1334	1330	1278	1290	1346	1306	1398	1306	9
10	1498	1390	1458	1390	1450	1446	1394	1406	1462	1422	1514	1422	10
11	1614	1506	1574	1506	1566	1562	1510	1518	1578	1538	1630	1538	11
12	1726	1622	1690	1618	1682	1678	1626	1634	1690	1650	1746	1650	12
13	1842	1738	1806	1734	1794	1790	1738	1750	1806	1766	1858	1766	13

TABLE 3.

Initial Dates of Hindu Months.

THE YEAR DIVIDED BY 4 LEAVES REMAINDER 3.

add days	Vaiś.	Jyai.	Âsh.	Śrâv.	Bhâdr.	Âśvi.	Kârtt.	Mârg.	Paush.	Mâgh.	Phâlg.	Chaitr.	add days
	19 Mar.	18 Apr.	20 May.	20 June.	22 July.	22 Aug.	21 Sept.	21 Oct.	20 Nov.	19 Dec.	17 Jan.	15 Feb.	
1	547	439	507	439	499	495	443	455	511	471	447	355	1
2	663	555	623	555	615	611	559	571	627	587	563	471	2
3	779	671	739	667	731	727	675	683	743	703	679	587	3
4	891	787	855	783	847	843	787	799	855	815	795	703	4
5	1007	899	971	899	959	955	903	915	971	931	911	815	5
6	1123	1015	1083	1015	1075	1071	1019	1031	1087	1047	1022	931	6
7	1239	1131	1199	1131	1191	1187	1135	1147	1203	1163	1139	1047	7
8	1355	1247	1315	1243	1307	1303	1251	1259	1319	1279	1255	1163	8
9	1467	1363	1431	1359	1423	1419	1363	1375	1431	1391	1371	1279	9
10	1583	1475	1547	1475	1535	1531	1479	1491	1547	1507	1487	1391	10
11	1699	1591	1659	1591	1651	1647	1595	1607	1663	1623	1599	1507	11
12	1815	1707	1775	1707	1767	1763	1711	1723	1779	1739	1715	1623	12
13	1931	1823	1891	1819	1883	1879	1827	1839	1895	1855	1831	1739	13

TABLE 4.

Initial Dates of Hindu Months.

LEAP-YEARS.

add days	Vaiś.	Jyai.	Âshâ.	Śrâv.	Bhâdr.	Âśvi.	Kârtt.	Mârg.	Paush.	Mâgh.	Phâlg.	Chaitr.	add days
	18 Mar.	17 Apr.	19 May.	19 June.	21 July.	21 Aug.	20 Sept.	20 Oct.	19 Nov.	18 Dec.	18 Jan.	16 Feb.	
1	520	412	480	408	472	468	416	424	484	444	536	440	1
2	632	528	596	524	588	580	528	540	596	556	648	556	2
3	748	640	712	640	700	696	644	656	712	672	764	672	3
4	864	756	824	756	816	812	764	772	828	788	880	788	4
5	980	872	940	872	932	928	876	888	944	904	996	904	5
6	1092	988	1056	984	1048	1044	992	1000	1060	1020	1112	1016	6
7	1208	1104	1172	1100	1164	1156	1104	1116	1172	1132	1224	1132	7
8	1324	1216	1288	1216	1276	1272	1220	1232	1288	1248	1340	1248	8
9	1440	1332	1400	1332	1392	1988	1336	1348	1104	1364	1456	1364	9
10	1556	1448	1516	1448	1508	1504	1452	1464	1520	1480	1572	1480	10
11	1668	1564	1632	1564	1624	1620	1568	1576	1630	1596	1688	1592	11
12	1784	1680	1748	1676	1740	1732	1680	1692	1748	1708	1800	1708	12
13	1900	1792	1864	1792	1852	1848	1796	1808	1864	1824	1916	1824	13

TABLE 5.

Years of the 19th Century A.D.

Years.	w	a	b	c	d
1801	5	5138	566	6	479
1802	6	8738	813	5	585
1803	7	2349	59	4	691
L 1804	1	5940	306	4	797
1805	3	9880	588	6	909
1806	4	3480	835	5	15
1807	5	7080	81	4	121
L 1808	6	681	328	4	227
1809	1	4621	610	6	339
1810	2	8221	857	5	445
1811	3	1822	103	4	551
L 1812	4	5422	350	3	657
1813	6	9362	632	5	769
1814	7	2962	879	5	875
1815	1	6563	125	4	981
L 1816	2	163	372	3	87
1817	4	4103	654	5	199
1818	5	7703	901	5	305
1819	6	1304	147	4	411
L 1820	7	4905	394	3	517
1821	2	8845	676	5	629
1822	3	2445	923	5	735
1823	4	6045	169	4	841
L 1824	5	9646	416	3	947
1825	7	3586	698	5	59
1826	1	7186	945	4	165
1827	2	787	191	4	271
L 1828	3	4387	438	3	377
1829	5	8327	720	5	489
1830	6	1927	967	4	595
1831	7	5528	213	4	701
L 1832	1	9128	460	3	807
1833	3	3068	742	5	919
1834	4	6668	989	4	25
1835	5	269	235	4	131
L 1836	6	3870	482	3	237
1837	1	7809	764	5	349
1838	2	1410	11	4	455
1839	3	5010	257	3	561
L 1840	4	8611	504	3	667
1841	6	2551	786	5	779
1842	7	6151	33	4	885
1843	1	9751	279	3	991
L 1844	2	3352	526	3	97
1845	4	7292	808	5	209
1846	5	892	55	4	315
1847	6	4493	301	3	421
L 1848	7	8093	548	3	527
1849	2	2033	830	5	639
1850	3	5633	77	4	745
1851	4	9234	323	3	851
L 1852	5	2835	570	2	957
1853	7	6775	852	4	69
1854	1	375	99	4	175
1855	2	3975	345	3	281
L 1856	3	7576	592	2	387
1857	5	1516	874	4	499
1858	6	5116	121	4	605
1859	7	8717	367	3	711
L 1860	1	2317	614	2	817
1861	3	6257	896	4	929
1862	4	9857	143	4	35
1863	5	3458	389	3	141
L 1864	6	7058	636	2	247
1865	1	998	918	4	359
1866	2	4598	165	3	465
1867	3	8199	411	3	571
L 1868	4	1800	658	2	677
1869	6	5740	940	4	789
1870	7	9340	187	3	895
1871	1	2940	433	3	1
L 1872	2	6541	680	2	107
1873	4	481	962	4	219
1874	5	4081	209	3	325
1875	6	7682	455	2	431
L 1876	7	1282	702	2	537
1877	2	5222	984	4	649
1878	3	8822	231	3	755
1879	4	2423	477	2	861
L 1880	5	6023	724	2	967
1881	7	9963	6	4	79
1882	1	3563	253	3	185
1883	2	7164	499	2	291
L 1884	3	765	746	2	397
1885	5	4705	28	4	509
1886	6	8305	275	3	615
1887	7	1905	521	2	721
L 1888	1	5506	768	1	827
1889	3	9446	50	3	939
1890	4	3046	297	3	45
1891	5	6647	543	2	151
L 1892	6	247	790	1	257
1893	1	4187	72	3	369
1894	2	7787	319	3	475
1895	3	1388	565	2	58[illegible]
L 1896	4	4988	812	1	687
1897	6	8928	94	3	799
1898	7	2528	341	3	905
1899	1	6129	587	2	1[illegible]
L 1900	2	9730	834	1	117

TABLE 6.

Centuries intervening between the given year and the corresponding one of the 19th Century.

Century.	w	a	b	c	d
15	6	6094	185	69	823
14	5	4626	734	67	573
13	4	3157	284	64	322
12	3	1688	834	62	73
11	2	220	384	59	823
10	1	8751	934	57	572
9	7	7282	484	55	322
8	6	5813	35	52	71
7	5	4345	585	50	822
6	4	2876	135	47	572
5	3	1407	685	45	321
4	2	9939	235	43	71
J. 3	1	8470	785	40	820
G. 2	4	3615	972	11	512
G. 1	2	1808	486	5	256

N B—Centuries 1 and 2 yield the date in the New Style; the other Centuries in the Old Style.

Equations for converting Hindu years into years A. D.

Kaliyuga-Saṁvat; — 3101. Vikrama-Saṁvat; — 56. Śaka-Saṁvat; + 78.

These equations give the commencement, A. D., of the *expired* Hindu year, *i.e.*, more properly, of the current year next after the expired year for which the equation is applied.

TABLE 7.

JANUARY.

Common. day	Leap year. day	w	a	b	c	d
1	1	0	...	...	...	...
2	2	1	339	36	3	6
3	3	2	677	73	5	12
4	4	3	1016	109	8	17
5	5	4	1355	145	11	23
6	6	5	1693	181	14	29
7	7	6	2032	218	16	35
8	8	0	2370	254	19	40
9	9	1	2709	290	22	46
10	10	2	3048	327	25	52
11	11	3	3386	363	27	58
12	12	4	3725	399	30	63
13	13	5	4064	436	33	69
14	14	6	4402	472	36	75
15	15	0	4741	508	38	81
16	16	1	5079	544	41	87
17	17	2	5418	581	44	92
18	18	3	5757	617	47	98
19	19	4	6095	653	49	104
20	20	5	6434	690	52	110
21	21	6	6773	726	55	115
22	22	0	7111	762	57	121
23	23	1	7450	798	60	127
24	24	2	7789	835	63	133
25	25	3	8127	871	66	138
26	26	4	8466	907	68	144
27	27	5	8804	944	71	150
28	28	6	9143	980	74	156
29	29	0	9482	16	77	162
30	30	1	9820	52	79	167
31	31	2	159	89	82	173

FEBRUARY.

Common. day	Leap year. day	w	a	b	c	d
1	1	3	498	125	85	179
2	2	4	836	161	88	185
3	3	5	1175	198	90	190
4	4	6	1513	234	93	196
5	5	0	1852	270	96	202
6	6	1	2191	306	99	208
7	7	2	2529	343	101	213
8	8	3	2868	379	104	219
9	9	4	3207	415	107	225
10	10	5	3545	452	110	231
11	11	6	3884	488	112	237
12	12	0	4243	524	115	242
13	13	1	4561	561	118	248
14	14	2	4900	597	120	254
15	15	3	5238	633	123	260
16	16	4	5577	669	126	265
17	17	5	5916	706	129	271
18	18	6	6254	742	131	277
19	19	0	6593	778	134	283
20	20	1	6932	815	137	288
21	21	2	7270	851	140	294
22	22	3	7609	887	142	300
23	23	4	7947	923	145	306
24	24	5	8286	960	148	312
25	25	6	8625	996	151	317
26	26	0	8963	32	153	323
27	27	1	9302	69	156	329
28	28	2	9641	105	159	335
...	29	3	9979	141	162	340

MARCH.

Common. day	Leap year. day	w	a	b	c	d
1	...	3	9979	141	162	340
2	1	4	318	177	164	346
3	2	5	657	214	167	352
4	3	6	995	250	170	358
5	4	0	1334	286	172	364
6	5	1	1672	323	175	369
7	6	2	2011	359	178	375
8	7	3	2350	395	181	381
9	8	4	2688	432	183	387
10	9	5	3027	468	186	392
11	10	6	3366	504	189	398
12	11	0	3704	540	192	404
13	12	1	4043	577	194	410
14	13	2	4382	613	197	415
15	14	3	4720	649	200	421
16	15	4	5059	686	203	427
17	16	5	5397	722	205	433
18	17	6	5736	758	208	439
19	18	0	6075	794	211	444
20	19	1	6413	831	214	450
21	20	2	6752	867	216	456
22	21	3	7091	903	219	462
23	22	4	7429	940	222	467
24	23	5	7768	976	224	473
25	24	6	8106	12	227	479
26	25	0	8445	48	230	485
27	26	1	8784	85	233	490
28	27	2	9122	121	235	496
29	28	3	9461	157	238	502
30	29	4	9800	194	241	508
31	30	5	138	230	244	514
...	31	6	477	266	246	519

1 Phâlguna c. about 114 | 1 Chaitra c. about 196 | 1 Vaisâkha c. about 279

♒ Kumbha-saṁkrânti. | ♓ Mîna-saṁkrânti. | ♈ Mêsha-saṁkrânti.

w.: 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 or 0 = Saturday.

TABLE 7—continued.

APRIL.							MAY.							JUNE.						
Common.	Leap year.	w	a	b	c	d	Common.	Leap year.	w	a	b	c	d	Common.	Leap year.	w	a	b	c	d
day.							day.							day.						
1	...	6	477	266	246	519	1	...	1	636	355	329	692	1	...	4	1133	480	413	871
2	1	0	816	303	249	525	2	1	2	974	391	331	698	2	1	5	1472	516	416	877
3	2	1	1154	339	252	531	3	2	3	1313	428	334	704	3	2	6	1811	553	419	883
4	3	2	1493	375	255	537	4	3	4	1652	464	337	710	4	3	0	2149	589	422	889
5	4	3	1831	411	257	542	5	4	5	1990	500	339	715	5	4	1	2488	625	424	894
6	5	4	2170	448	260	548	6	5	6	2329	536	342	721	6	5	2	2827	661	427	900
7	6	5	2509	484	263	554	7	6	0	2668	573	345	727	7	6	3	3165	698	430	906
8	7	6	2847	520	266	560	8	7	1	3006	609	348	733	8	7	4	3504	734	433	912
9	8	0	3186	557	268	565	9	8	2	3345	645	350	739	9	8	5	3842	770	435	917
10	9	1	3525	593	271	571	10	9	3	3684	682	353	744	10	9	6	4181	807	438	923
11	10	2	3863	629	274	577	11	10	4	4022	718	356	750	11	10	0	4520	843	441	929
12	11	3	4202	665	277	583	12	11	5	4361	754	359	756	12	11	1	4858	879	444	935
13	12	4	4540	702	279	589	13	12	6	4699	790	361	762	13	12	2	5197	916	446	941
14	13	5	4879	738	282	594	14	13	0	5038	827	364	767	14	13	3	5536	952	449	946
15	14	6	5218	774	285	600	15	14	1	5377	863	367	773	15	14	4	5874	988	452	952
16	15	0	5556	811	287	606	16	15	2	5715	899	370	779	16	15	5	6213	24	454	958
17	16	1	5895	847	290	612	17	16	3	6054	936	372	785	17	16	6	6552	61	457	964
18	17	2	6234	883	293	617	18	17	4	6393	972	375	790	18	17	0	6890	97	460	969
19	18	3	6572	919	296	623	19	18	5	6731	8	378	796	19	18	1	7229	133	463	975
20	19	4	6911	956	298	629	20	19	6	7070	45	381	802	20	19	2	7567	170	465	981
21	20	5	7250	992	301	635	21	20	0	7408	81	383	808	21	20	3	7906	206	468	987
22	21	6	7588	28	304	640	22	21	1	7747	117	386	814	22	21	4	8245	242	471	992
23	22	0	7927	65	307	646	23	22	2	8086	153	389	819	23	22	5	8583	278	474	998
24	23	1	8265	101	309	652	24	23	3	8424	190	391	825	24	23	6	8922	315	476	4
25	24	2	8604	137	312	658	25	24	4	8763	226	394	831	25	24	0	9261	351	479	10
26	25	3	8943	174	315	664	26	25	5	9102	262	397	837	26	25	1	9599	387	482	16
27	26	4	9281	210	318	669	27	26	6	9440	299	400	842	27	26	2	9938	424	485	21
28	27	5	9620	246	320	675	28	27	0	9779	335	402	848	28	27	3	276	460	487	27
29	28	6	9959	282	323	681	29	28	1	118	371	405	854	29	28	4	615	496	490	33
30	29	0	297	319	326	687	30	29	2	456	407	408	860	30	29	5	954	532	493	39
...	30	1	636	355	329	692	31	30	3	795	444	411	865	...	30	6	1292	569	496	44
							...	31	4	1133	486	413	871							

1 Jyaishtha c. about 361 — 8 Vṛisha-saṁkrânti

1 Âshâḍha c. about 150 — II Mithuna-saṁkrânti.

1 Śrâvana c. about 536 — ♋ Karkata-saṁkrânti.

w ; 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 or 0 = Saturday

TABLE 7—continued.

JULY.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	6	1292	569	496	44
2	1	0	1631	605	498	50
3	2	1	1970	641	501	56
4	3	2	2308	678	504	62
5	4	3	2647	714	506	67
6	5	4	2986	750	509	73
7	6	5	3324	787	512	79
8	7	6	3663	823	515	85
9	8	0	4001	859	517	91
10	9	1	4340	895	520	96
11	10	2	4679	932	523	102
12	11	3	5017	968	526	108
13	12	4	5356	4	528	114
14	13	5	5695	41	531	119
15	14	6	6033	77	534	125
16	15	0	6372	113	537	131
17	16	1	6710	149	539	137
18	17	2	7049	186	542	142
19	18	3	7388	222	545	148
20	19	4	7726	258	548	154
21	20	5	8065	295	550	160
22	21	6	8404	331	553	166
23	22	0	8742	367	556	171
24	23	1	9081	403	559	177
25	24	2	9420	440	561	183
26	25	3	9758	476	564	189
27	26	4	97	512	567	194
28	27	5	435	549	569	200
29	28	6	774	585	572	206
30	29	0	1113	621	575	212
31	30	1	1451	658	578	217
...	31	2	1790	694	580	223

1 Bhâdrapada c. about 622
♌ Simha-samkrânti

AUGUST.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	2	1790	694	580	223
2	1	3	2129	720	583	229
3	2	4	2467	766	586	235
4	3	5	2806	803	589	241
5	4	6	3144	839	591	246
6	5	0	3483	875	594	252
7	6	1	3822	912	597	258
8	7	2	4160	948	600	264
9	8	3	4499	984	602	269
10	9	4	4838	20	605	275
11	10	5	5176	57	608	281
12	11	6	5515	93	611	287
13	12	0	5854	126	613	292
14	13	1	6192	169	616	298
15	14	2	6531	202	619	304
16	15	3	6869	238	621	310
17	16	4	7208	274	624	316
18	17	5	7547	311	627	321
19	18	6	7885	347	630	327
20	19	0	8224	383	632	333
21	20	1	8563	420	635	339
22	21	2	8901	456	638	344
23	22	3	9240	492	641	350
24	23	4	9578	529	643	356
25	24	5	9917	565	646	362
26	25	6	256	601	649	367
27	26	0	594	637	652	373
28	27	1	933	674	654	379
29	28	2	1272	710	657	385
30	29	3	1610	746	660	391
31	30	4	1949	783	663	396
...	31	5	2288	819	665	402

1 Aśvina c. about 708
♍ Kanyâ-samkrânti.

SEPTEMBER.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	5	2288	819	665	402
2	1	6	2626	855	668	408
3	2	0	2965	891	671	414
4	3	1	3303	928	673	419
5	4	2	3642	964	676	425
6	5	3	3981	0	679	431
7	6	4	4319	37	682	437
8	7	5	4658	73	684	442
9	8	6	4997	109	687	448
10	9	0	5335	145	690	454
11	10	1	5674	182	693	460
12	11	2	6013	218	695	466
13	12	3	6351	254	698	471
14	13	4	6690	291	701	477
15	14	5	7028	327	704	483
16	15	6	7367	363	706	489
17	16	0	7706	400	709	494
18	17	1	8044	436	712	500
19	18	2	8383	472	715	506
20	19	3	8722	508	717	512
21	20	4	9060	545	720	518
22	21	5	9399	581	723	523
23	22	6	9737	617	726	529
24	23	0	76	654	728	535
25	24	1	415	690	731	541
26	25	2	753	726	734	546
27	26	3	1092	762	736	552
28	27	4	1431	799	739	558
29	28	5	1769	835	742	564
30	29	6	2108	871	745	569
...	30	0	2447	908	747	575

1 Kârttika c. about 791
♎ Tulâ-samkrânti.

1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 or 0 = Saturday.

TABLE 7—continued.

OCTOBER.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	0	2447	908	747	575
2	1	1	2785	944	750	581
3	2	2	3124	980	753	587
4	3	3	3462	16	756	593
5	4	4	3801	53	758	598
6	5	5	4140	89	761	604
7	6	6	4478	125	764	610
8	7	0	4817	162	767	616
9	8	1	5156	198	769	621
10	9	2	5494	234	772	627
11	10	3	5833	271	775	633
12	11	4	6171	307	778	639
13	12	5	6510	343	780	614
14	13	6	6849	379	783	650
15	14	0	7187	416	786	656
16	15	1	7526	452	788	662
17	16	2	7865	488	791	668
18	17	3	8203	525	794	673
19	18	4	8542	561	797	679
20	19	5	8881	597	799	685
21	20	6	9219	633	802	691
22	21	0	9558	670	805	696
23	22	1	9896	706	808	702
24	23	2	235	742	810	708
25	24	3	574	779	813	714
26	25	4	912	815	816	719
27	26	5	1251	851	819	725
28	27	6	1590	887	821	731
29	28	0	1928	924	824	737
30	29	1	2267	960	827	743
31	30	2	2605	996	830	748
...	31	3	2944	33	832	754

1 Margasira *c* about 872
♏ Vrischika-saṁkrânti.

NOVEMBER.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	3	2944	33	832	754
2	1	4	3283	69	835	760
3	2	5	3621	105	838	766
4	3	6	3960	142	840	771
5	4	0	4299	178	843	777
6	5	1	4637	214	846	783
7	6	2	4976	250	849	789
8	7	3	5315	287	851	794
9	8	4	5653	323	854	800
10	9	5	5992	359	857	806
11	10	6	6330	396	860	812
12	11	0	6669	432	862	818
13	12	1	7008	468	865	823
14	13	2	7346	504	868	829
15	14	3	7685	541	871	835
16	15	4	8024	577	873	841
17	16	5	8362	613	876	846
18	17	6	8701	650	879	852
19	18	0	9039	686	882	858
20	19	1	9378	722	884	864
21	20	2	9717	758	887	869
22	21	3	55	795	890	875
23	22	4	394	831	893	881
24	23	5	733	867	895	887
25	24	6	1071	904	898	893
26	25	0	1410	940	901	898
27	26	1	1749	976	903	904
28	27	2	2087	13	906	910
29	28	3	2426	49	909	916
30	29	4	2764	85	912	921
...	30	5	3103	121	914	927

1 Pausha *c* about 954
♐ Dhanuḥ-saṁkrânti.

DECEMBER.

Common.	Leap year.	w	a	b	c	d
day.						
1	...	5	3103	121	914	927
2	1	6	3442	158	917	933
3	2	0	3780	194	920	939
4	3	1	4119	230	923	944
5	4	2	4458	267	925	950
6	5	3	4796	303	928	956
7	6	4	5135	339	931	962
8	7	5	5473	375	934	968
9	8	6	5812	412	936	973
10	9	0	6151	448	939	979
11	10	1	6489	484	642	985
12	11	2	6828	521	945	991
13	12	3	7167	557	947	996
14	13	4	7505	593	950	2
15	14	5	7844	629	953	8
16	15	6	8183	666	955	14
17	16	0	8521	702	958	19
18	17	1	8860	738	961	25
19	18	2	9198	775	964	31
20	19	3	9537	811	966	37
21	20	4	9876	847	969	43
22	21	5	214	884	972	48
23	22	6	553	920	975	54
24	23	0	892	956	977	60
25	24	1	1230	992	980	66
26	25	2	1569	29	983	71
27	26	3	1907	65	986	77
28	27	4	2246	101	988	83
29	28	5	2585	138	991	89
30	29	6	2923	174	994	95
31	30	0	3262	210	997	100
...	31	1	3601	246	999	106

1 Mâgha *c* about 34
♑ Makara-saṁkrânti.

w. 1 = Sunday, 2 = Monday, 3 = Tuesday, 4 = Wednesday, 5 = Thursday, 6 = Friday, 7 or 0 = Saturday

TABLE 7—continued.

JANUARY OF THE YEAR CONTINUED							FEBRUARY OF THE YEAR CONTINUED.							MARCH OF THE YEAR CONTINUED.						
Preced. common y.	Preced. leap y.	w	a	b	c	d	Preced. common y.	Preced. leap y.	w	a	b	c	d	Years 2, 3	Years 0, 1	w	a	b	c	d
day.							day.							day.						
1	...	1	3601	246	999	106	1	...	4	4098	371	84	285	1	...	4	3580	387	161	446
2	1	2	3939	283	2	112	2	1	5	4437	408	87	290	2	1	5	3918	423	163	452
3	2	3	4278	319	4	118	3	2	6	4776	444	89	296	3	2	6	4257	460	166	458
4	3	4	4617	355	7	123	4	3	0	5114	480	92	302	4	3	0	4596	496	169	463
5	4	5	4955	391	10	129	5	4	1	5453	517	95	308	5	4	1	4934	533	171	469
6	5	6	5294	428	13	135	6	5	2	5791	553	98	313	6	5	2	5273	569	174	475
7	6	0	5632	464	15	141	7	6	3	6130	589	100	319	7	6	3	5612	605	177	481
8	7	1	5971	500	18	146	8	7	4	6469	625	103	325	8	7	4	5950	642	180	487
9	8	2	6310	537	21	152	9	8	5	6807	662	106	331	9	8	5	6289	678	182	492
10	9	3	6648	573	24	158	10	9	6	7146	698	109	337	10	9	6	6628	714	185	498
11	10	4	6987	609	26	164	11	10	0	7485	734	111	342	11	10	0	6966	751	188	504
12	11	5	7326	645	29	169	12	11	1	7823	771	114	348	12	11	1	7305	787	191	510
13	12	6	7664	682	32	175	13	12	2	8162	807	117	354	13	12	2	7644	823	193	515
14	13	0	8003	718	35	181	14	13	3	8500	843	119	360	14	13	3	7982	859	196	521
15	14	1	8341	754	37	187	15	14	4	8839	880	122	365	15	14	4	8321	896	199	527
16	15	2	8680	791	40	192	16	15	5	9178	916	125	371	16	15	5	8659	932	202	533
17	16	3	9019	827	43	198	17	16	6	9516	952	128	377	17	16	6	8998	968	204	539
18	17	4	9357	863	46	204	18	17	0	9855	988	130	383	18	17	0	9337	5	207	544
19	18	5	9696	900	48	210	19	18	1	194	25	133	388	19	18	1	9675	41	210	550
20	19	6	35	936	51	216	20	19	2	532	61	136	394	20	19	2	14	77	213	556
21	20	0	373	972	54	221	21	20	3	871	97	139	400	21	20	3	353	113	215	562
22	21	1	712	9	56	227	22	21	4	1209	134	141	406	22	21	4	691	150	218	567
23	22	2	1051	45	59	233	23	22	5	1548	170	144	412	23	22	5	1030	186	221	573
24	23	3	1389	81	62	238	24	23	6	1887	206	147	417	24	23	6	1368	222	223	579
25	24	4	1728	117	65	244	25	24	0	2225	242	150	423	25	24	0	1707	259	226	585
26	25	5	2066	154	67	250	26	25	1	2564	279	152	429	26	25	1	2046	295	229	590
27	26	6	2405	190	70	256	27	26	2	2903	315	155	435	27	26	2	2384	331	232	596
28	27	0	2744	226	73	262	28	27	3	3241	351	158	440	28	27	3	2723	367	234	602
29	28	1	3082	263	76	267	29	28	4	3580	388	161	446	29	28	4	3062	404	237	608
30	29	2	3421	299	78	273								30	29	5	3400	440	240	614
31	30	3	3760	335	81	279								31	30	6	3739	476	243	619
...	31	4	4098	371	84	285								...	31	0	4078	513	245	625

1 Phâlguna c. about 114 ♒ Kumbha-saṁkrânti

1 Chaitra c. about 196 ♓ Mîna-saṁkrânti

1 Vaiśâkha c. about 279 ♈ Mêsha-saṁkrânti.

Note.—Divide the Christian year in which the date falls by 4: the Remainder shows which Index applies.

TABLE 8.

Hours and Minutes.

Hours.	a	b	c	d	Minutes.	a	b	c	d	Minutes.	a	b	c	d
1	14	2	0	0	1	0	0	0	0	31	7	1	0	0
2	28	3	0	0	2	0	0	0	0	32	8	1	0	0
3	42	5	0	1	3	1	0	0	0	33	8	1	0	0
4	56	6	0	1	4	1	0	0	0	34	8	1	0	0
5	71	8	1	1	5	1	0	0	0	35	8	1	0	0
6	85	9	1	1	6	1	0	0	0	36	8	1	0	0
7	99	11	1	2	7	2	0	0	0	37	9	1	0	0
8	113	12	1	2	8	2	0	0	0	38	9	1	0	0
9	127	14	1	2	9	2	0	0	0	39	9	1	0	0
10	141	15	1	2	10	2	0	0	0	40	9	1	0	0
11	155	17	1	3	11	3	0	0	0	41	10	1	0	0
12	169	18	1	3	12	3	0	0	0	42	10	1	0	0
13	183	20	1	3	13	3	0	0	0	43	10	1	0	0
14	198	21	2	3	14	3	0	0	0	44	10	1	0	0
15	212	23	2	4	15	4	0	0	0	45	11	1	0	0
16	226	24	2	4	16	4	0	0	0	46	11	1	0	0
17	240	26	2	4	17	4	0	0	0	47	11	1	0	0
18	254	27	2	4	18	4	0	0	0	48	11	1	0	0
19	268	29	2	5	19	4	0	0	0	49	12	1	0	0
20	282	30	2	5	20	5	1	0	0	50	12	1	0	0
21	296	32	2	5	21	5	1	0	0	51	12	1	0	0
22	310	33	3	5	22	5	1	0	0	52	12	1	0	0
23	325	35	3	6	23	5	1	0	0	53	12	1	0	0
24	339	36	3	6	24	6	1	0	0	54	13	1	0	0
					25	6	1	0	0	55	13	1	0	0
					26	6	1	0	0	56	13	1	0	0
					27	6	1	0	0	57	13	1	0	0
					28	7	1	0	0	58	14	1	0	0
					29	7	1	0	0	59	14	1	0	0
					30	7	1	0	0	60	14	2	0	0

TABLE 9.

Argument b.

Arg.	Equ.	Arg.	Equ.	Arg.	Equ.	Arg.	Equ.
0	140	250	280	500	140	750	[illegible]
10	149	260	280	510	131	760	0
20	158	270	279	520	122	770	1
30	166	280	277	530	114	780	3
40	175	290	276	540	105	790	4
50	184	300	273	550	96	800	7
60	192	310	270	560	88	810	10
70	200	320	267	570	80	820	13
80	208	330	263	580	72	830	17
90	215	340	258	590	65	840	22
100	223	350	253	600	57	850	27
110	230	360	248	610	50	860	32
120	236	370	242	620	44	870	38
130	242	380	236	630	38	880	44
140	248	390	230	640	32	890	50
150	253	400	223	650	27	900	57
160	258	410	215	660	22	910	65
170	263	420	208	670	17	920	72
180	267	430	200	680	13	930	80
190	270	440	192	690	10	940	88
200	273	450	184	700	7	950	96
210	276	460	175	710	4	960	105
220	277	470	166	720	3	970	114
230	279	480	158	730	1	980	122
240	280	490	149	740	0	990	131
						1000	140

TABLE 10.

Argument c.

Arg.	Eq	Arg.	Eq.	Arg.	Eq.	Arg.	Eq.
0	60	250	0	500	60	750	121
10	57	260	0	510	64	760	121
20	53	270	0	520	68	770	120
30	49	280	1	530	72	780	12
40	45	290	2	540	76	790	119
50	41	300	3	550	79	800	117
60	38	310	4	560	83	810	117
70	34	320	6	570	86	820	115
80	31	330	7	580	90	830	113
90	28	340	9	590	93	840	112
100	25	350	11	600	96	850	109
110	22	360	14	610	99	860	107
120	19	370	16	620	102	870	105
130	16	380	19	630	105	880	102
140	14	390	22	640	107	890	99
150	11	400	25	650	109	900	96
160	9	410	28	660	112	910	93
170	7	420	31	670	113	920	90
180	6	430	34	680	115	930	86
190	4	440	38	690	117	940	83
200	3	450	41	700	118	950	76
210	2	460	45	710	119	960	76
220	1	470	49	720	120	970	72
230	0	480	53	730	120	980	68
240	0	490	57	740	121	990	64
250	0	500	60	750	121	1000	60

TABLE 11.

Differences.

Arg. △	H. M.	Arg. △	H. M.	Arg. △	H. M.
1	0. 4	36	2.33	71	5. 2
2	0. 9	37	2.37	72	5. 6
3	0.13	38	2.42	73	5.10
4	0.17	39	2.46	74	5.15
5	0.21	40	2.50	75	5.19
6	0.26	41	2.54	76	5.23
7	0.30	42	2.59	77	5.27
8	0.34	43	3. 3	78	5.32
9	0.38	44	3. 7	79	5.36
10	0.43	45	3.11	80	5.40
11	0.47	46	3.16	81	5.44
12	0.51	47	3.20	82	5.49
13	0.55	48	3.24	83	5.53
14	1. 0	49	3.28	84	5.57
15	1. 4	50	3.33	85	6. 1
16	1. 8	51	3.37	86	6. 6
17	1.12	52	3.41	87	6.10
18	1.17	53	3.45	88	6.14
19	1.21	54	3.50	89	6.18
20	1.25	55	3.54	90	6.23
21	1.29	56	3.58	91	6.27
22	1.34	57	4. 2	92	6.31
23	1.38	58	4. 7	93	6.35
24	1.42	59	4.11	94	6.40
25	1.46	60	4.15	95	6.44
26	1.51	61	4.19	96	6.48
27	1.55	62	4.24	97	6.52
28	1.59	63	4.28	98	6.57
29	2. 3	64	4.32	99	7. 1
30	2. 8	65	4.36	100	7. 5
31	2.12	66	4.41		
32	2.16	67	4.45	200	14.10
33	2.20	68	4.49		
34	2.25	69	4.53	300	21.16
35	2.29	70	4.58		

TABLE 12.—Subsidiary.

Correspondence of Dominical Letters and Week-Days.

a	S	Mo	Tu	W	Th	Fr	Sat
b	Mo	Tu	W	Th	Fr	Sat	S
c	Tu	W	Th	Fr	Sat	S	Mo
d	**W**	**Th**	**Fr**	**Sat**	**S**	**Mo**	**Tu**
e	Th	Fr	Sat	S	Mo	Tu	W
f	Fr	Sat	S	Mo	Tu	W	Th
g	Sat	S	Mo	Tu	W	Th	Fr

S = Ravi, Sûrya-vâra.
Mo = Sòma, Chandra.
Tu = Bhauma, Mangala.
W = Budha.
Th = Guru.
Fr = Śukra.
Sat = Śani.

TABLE 12.

Perpetual Lunar Calendar.

Containing the Epacts and Dominical Letters.

Mâgha.					Phâlguna.				Chaitra.			Vaiśâkha.			Jyaishtha.			Â-
Days.	January.				February.				March.			April.			May.			Days.
	Common year.		Leap year.		Common year.		Leap year.											
1	30 I	a	XXIX	g	II	d	I	c	30 I		d	II		g	III	18	b	1
2	II	b	30 I	a	III	e	II	d	II		e	III		a	IV	19	c	2
3	III	c	II	b	IV	f	III	e	III		f	IV		b	V		d	3
4	IV	d	III	c	V	g	IV	f	IV		g	V		c	VI		e	4
5	V	e	IV	d	VI	a	V	g	V		a	VI		d	VII		f	5
6	VI	f	V	e	VII	b	VI	a	VI		b	VII		e	VIII		g	6
7	VII	g	VI	f	VIII	c	VII	b	VII		c	VIII		f	IX		a	7
8	VIII	a	VII	g	IX	d	VIII	c	VIII		d	IX		g	X		b	8
9	IX	b	VIII	a	X	e	IX	d	IX		e	X		a	XI		c	9
10	X	c	IX	b	XI	f	X	e	X		f	XI		b	XII		d	10
11	XI	d	X	c	XII	g	XI	f	XI		g	XII		c	XIII		e	11
12	XII	e	XI	d	XIII	a	XII	g	XII		a	XIII		d	XIV		f	12
13	XIII	f	XII	e	XIV	b	XIII	a	XIII		b	XIV		e	XV		g	13
14	XIV	g	XIII	f	XV	c	XIV	b	XIV		c	XV		f	XVI		a	14
15	XV	a	XIV	g	XVI	d	XV	c	XV		d	XVI		g	XVII		b	15
16	XVI	b	XV	a	XVII	e	XVI	d	XVI		e	XVII		a	XVIII		c	16
17	XVII	c	XVI	b	XVIII	f	XVII	e	XVII		f	XVIII		b	XIX		d	17
18	XVIII	d	XVII	c	XIX	g	XVIII	f	XVIII	4	g	XIX		c	XX		e	18
19	XIX	e	XVIII	d	XX	a	XIX	g	XIX	5	a	XX	4	d	XXI		f	19
20	XX	f	XIX	e	XXI	b	XX	a	XX	7	b	XXI	5	e	XXII	4	g	20
21	XXI	g	XX	f	XXII	c	XXI	b	XXI	8	c	XXII	6	f	XXIII	5	a	21
22	XXII	a	XXI	g	XXIII	d	XXII	c	XXII	9	d	XXIII	7	g	XXIV	6	b	22
23	XXIII	b	XXII	a	XXIV	e	XXIII	d	XXIII	10	e	XXIV	8	a	XXV	7	c	23
24	XXIV	c	XXIII	b	XXV	f	XXIV	e	XXIV	11	f	XXV	10	b	XXVI	8	d	24
25	XXV	d	XXIV	c	XXVI	g	XXV	f	XXV	12	g	XXVI	11	c	XXVII	9	e	25
26	XXVI	e	XXV	d	XXVII	a	XXVI	g	XXVI	13	a	XXVII	12	d	XXVIII	10	f	26
27	XXVII	f	XXVI	e	XXVIII	b	XXVII	a	XXVII	14	b	XXVIII	13	e	XXIX	12	g	27
28	XXVIII	g	XXVII	f	XXIX	c	XXVIII	b	XXVIII	15	c	XXIX	14	f	XXX	13	a	28
29	XXIX	a	XXVIII	g	... ...		XXIX	c	XXIX	17	d	30 I	15	g	I	14	b	29
30	XXX	b	XXIX	a	....		... ...		XXX	18	e	II	16	a	II	15	c	30
31	I	c	XXX	b	.. ..		.. ..		I	19	f	. .....			III	16	d	31

TABLE 12.—Continued.

Perpetual Lunar Calendar.

Containing the Epacts and Dominical Letters.

shâḍha.	Śrâvaṇa.	Bhâdrapada.	Âśvina.	Kârttika.	Mârgaśira.	Pausha.	Mâ-	
Days.	June.	July.	August.	September.	October.	November.	December.	Days.
1	IV 17 e	V 16 g	VI 15 c	VIII 15 f	VIII 14 a	X 16 d	X 16 f	1
2	V 18 f	VI 17 a	VII 16 d	IX 16 g	IX 16 b	XI 17 e	XI 17 g	2
3	VI 19 g	VII 18 b	VIII 17 e	X 17 a	X 17 c	XII 18 f	XII 18 a	3
4	VII a	VIII 19 c	IX 18 f	XI 18 b	XI 18 d	XIII 19 g	XIII 19 b	4
5	VIII b	IX d	X g	XII 19 c	XII 19 e	XIV a	XIV c	5
6	IX c	X e	XI a	XIII d	XIII f	XV b	XV d	6
7	X d	XI f	XII b	XIV e	XIV g	XVI c	XVI e	7
8	XI e	XII g	XIII c	XV f	XV a	XVII d	XVII f	8
9	XII f	XIII a	XIV d	XVI g	XVI b	XVIII e	XVIII g	9
10	XIII g	XIV b	XV e	XVII a	XVII c	XIX f	XIX a	10
11	XIV a	XV c	XVI f	XVIII b	XVIII d	XX g	XX b	11
12	XV b	XVI d	XVII g	XIX c	XIX e	XXI a	XXI c	12
13	XVI c	XVII e	XVIII a	XX d	XX f	XXII b	XXII d	13
14	XVII d	XVIII f	XIX b	XXI e	XXI g	XXIII c	XXIII e	14
15	XVIII e	XIX g	XX c	XXII f	XXII a	XXIV d	XXIV f	15
16	XIX f	XX a	XXI d	XXIII g	XXIII b	XXV e	XXV g	16
17	XX g	XXI b	XXII e	XXIV a	XXIV c	XXVI f	XXVI a	17
18	XXI a	XXII c	XXIII f	XXV b	XXV d	XXVII g	XXVII b	18
19	XXII b	XXIII d	XXIV g	XXVI c	XXVI e	XXVIII a	XXVIII c	19
20	XXIII c	XXIV e	XXV a	XXVII d	XXVII f	XXIX b	XXIX d	20
21	XXIV 4 d	XXV f	XXVI b	XXVIII e	XXVIII g	XXX 4 c	30 I 4 e	21
22	XXV 5 e	XXVI 4 g	XXVII 4 c	XXIX 4 f	XXIX 4 a	I 6 d	II 6 f	22
23	XXVI 6 f	XXVII 5 a	XXVIII 5 d	XXX 5 g	30 I 5 b	II 7 e	III 7 g	23
24	XXVII 7 g	XXVIII 6 b	XXIX 6 e	I 6 a	II 6 c	III 8 f	IV 8 a	24
25	XXVIII 9 a	XXIX 7 c	30 I 7 f	II 8 b	III 8 d	IV 9 g	V 9 b	25
26	XXIX 10 b	XXX 8 d	II 8 g	III 9 c	IV 9 e	V 10 a	VI 10 c	26
27	30 I 11 c	I 9 e	III 9 a	IV 10 d	V 10 f	VI 11 b	VII 11 d	27
28	II 12 d	II 10 f	IV 10 b	V 11 e	VI 11 g	VII 13 c	VIII 12 e	28
29	III 13 e	III 12 g	V 11 c	VI 12 f	VII 12 a	VIII 14 d	IX 13 f	29
30	IV 14 f	IV 13 a	VI 13 d	VII 13 g	VIII 13 b	IX 15 e	X 15 g	30
31	....	V 14 b	VII 14 e	....	IX 14 c		XI 16 a	31

TABLE 12.—continued.

Perpetual Lunar Calendar.

Continued for the year following.

Mâ	gha. / Phâlguna.	Phâlguna. / Chaitra.	Chaitra.	Chaitra. / Vaiśâkha.	Vaiśâkha.	Vaiśâkha. / Jyai.
Days.	January.	February.	March.		April.	
			Common year.	Leap year.	Common year.	Leap year.
1	XII 17 b	XIII e	XII 18 e	XIII 19 f	XIII a	XIV b
2	XIII 18 c	XIV f	XIII 19 f	XIV g	XIV b	XV c
3	XIV 19 d	XV g	XIV g	XV a	XV c	XVI d
4	XV e	XVI a	XV a	XVI b	XVI d	XVII e
5	XVI f	XVII b	XVI b	XVII c	XVII e	XVIII f
6	XVII g	XVIII c	XVII c	XVIII d	XVIII f	XIX g
7	XVIII a	XIX d	XVIII d	XIX e	XIX g	XX a
8	XIX b	XX e	XIX e	XX f	XX a	XXI b
9	XX c	XXI f	XX f	XXI g	XXI b	XXII c
10	XXI d	XXII g	XXI g	XXII a	XXII c	XXIII d
11	XXII e	XXIII a	XXII a	XXIII b	XXIII d	XXIV e
12	XXIII f	XXIV b	XXIII b	XXIV c	XXIV e	XXV f
13	XXIV g	XXV c	XXIV c	XXV d	XXV f	XXVI g
14	XXV a	XXVI d	XXV d	XXVI e	XXVI g	XXVII a
15	XXVI b	XXVII e	XXVI e	XXVII f	XXVII a	XXVIII b
16	XXVII c	XXVIII f	XXVII f	XXVIII g	XXVIII b	XXIX c
17	XXVIII d	XXIX 4 g	XXVIII g	XXIX a	XXIX c	30 I d
18	XXIX 4 e	30 I 5 a	XXIX a	XXX b	30 I d	II e
19	XXX 5 f	II 6 b	XXX b	I c	II e	III f
20	I 6 g	III 8 c	I c	II d	III f	IV g
21	II 7 a	IV 9 d	II d	III e	IV g	V a
22	III 8 b	V 10 e	III e	IV f	V a	VI b
23	IV 10 c	VI 11 f	IV f	V g	VI b	VII c
24	V 11 d	VII 12 g	V g	VI a	VII c	VIII d
25	VI 12 e	VIII 13 a	VI a	VII b	VIII d	IX e
26	VII 13 f	IX 14 b	VII b	VIII c	IX e	X f
27	VIII 14 g	X 15 c	VIII c	IX d	X f	XI g
28	IX 15 a	XI 17 d	IX d	X e	XI g	XII a
29	X 17 b	XII 18 e	X e	XI f	XII a	XIII b
30	XI 18 c	....	XI f	XII g	XIII b	XIV c
31	XII 19 d	.. ..	XII g	XIII a	....	....

TABLE 13.

For finding the date of new-moon in March.

PART THE FIRST.

I.		II.	
0	(+1)	0	[+0]
304	(+0)	76	[$-\frac{1}{4}$]
608	(−1)	152	[$-\frac{2}{4}$]
912	(−2)	228	[$-\frac{3}{4}$]
1216	(−3)		
1520	(−4)		
1824	(−5)		

PART THE SECOND.

y	d	y	d	y	d	y	d
0	$22\frac{3}{4}$	19	$23\frac{2}{4}$	38	$23\frac{1}{4}$	57	23
1	$12\frac{1}{4}$	20	12	39	$12\frac{2}{4}$	58	$12\frac{1}{4}$
2	$31\frac{1}{4}$	21	$30\frac{3}{4}$	40	$30\frac{2}{4}$	59	$31\frac{1}{4}$
3	$20\frac{2}{4}$	22	$20\frac{1}{4}$	41	20	60	$19\frac{3}{4}$
4	$8\frac{3}{4}$	23	$9\frac{2}{4}$	42	$9\frac{1}{4}$	61	9
5	$27\frac{3}{4}$	24	$27\frac{2}{4}$	43	$28\frac{1}{4}$	62	$27\frac{2}{4}$
6	$17\frac{1}{4}$	25	$16\frac{3}{4}$	44	$16\frac{2}{4}$	63	$17\frac{1}{4}$
7	$6\frac{2}{4}$	26	$6\frac{1}{4}$	45	6	64	$5\frac{3}{4}$
8	$24\frac{2}{4}$	27	$25\frac{1}{4}$	46	$24\frac{3}{4}$	65	$24\frac{2}{4}$
9	$13\frac{2}{4}$	28	$13\frac{2}{4}$	47	$14\frac{1}{4}$	66	$13\frac{3}{4}$
10	$3\frac{1}{4}$	29	$2\frac{3}{4}$	48	$2\frac{2}{4}$	67	$3\frac{1}{4}$
11	22	30	$21\frac{3}{4}$	49	$21\frac{2}{4}$	68	21
12	$10\frac{2}{4}$	31	11	50	$10\frac{3}{4}$	69	$10\frac{2}{4}$
13	$29\frac{1}{4}$	32	29	51	$29\frac{3}{4}$	70	$29\frac{1}{4}$
14	$18\frac{3}{4}$	33	$18\frac{1}{4}$	52	18	71	$18\frac{1}{4}$
15	8	34	$7\frac{3}{4}$	53	$7\frac{2}{4}$	72	7
16	26	35	$26\frac{2}{4}$	54	$26\frac{1}{4}$	73	26
17	$15\frac{1}{4}$	36	15	55	$15\frac{3}{4}$	74	$15\frac{1}{4}$
18	$4\frac{3}{4}$	37	$4\frac{1}{4}$	56	4	75	$4\frac{3}{4}$

Example.—To find the day of new-moon in March, A.D. 1468.

1468
From I .... 1216 (−3)
Remainder...... 252
From II......... 228 ($-\frac{3}{4}$)
Remainder ...... 24 ($-3\frac{3}{4}$)
From second part. 24 = $27\frac{2}{4}$
Subtract...... $3\frac{3}{4}$
$23\frac{3}{4}$

New-moon: in the last quarter of 23rd March. Chaitra *śu di* 1 on 24th March. Epact XXIV.

TABLE 14.

Tables giving the week-day of the 1st March (Old Style) = d. From A.D. 0 to 2100.

Years (0 to 24.)

Centuries	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Centuries
0 7 14	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	0 7 14
1 8 15	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	1 8 15
2 9 16	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	2 9 16
3 10 17	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	3 10 17
4 11 18	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	4 11 18
5 12 19	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	5 12 19
6 13 20	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	6 13 20

Years (25 to 49.)

Centuries	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	Centuries
0 7 14	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	0 7 14
1 8 15	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	1 8 15
2 9 16	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	2 9 16
3 10 17	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	3 10 17
4 11 18	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	4 11 18
5 12 19	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	5 12 19
6 13 20	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	6 13 20

Years (50 to 74.)

Centuries	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	Centuries
0 7 14	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	0 7 14
1 8 15	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	1 8 15
2 9 16	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	2 9 16
3 10 17	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	3 10 17
4 11 18	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	4 11 18
5 12 19	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	5 12 19
6 13 20	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	6 13 20

Years (75 to 99.)

Centuries	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	Centuries
0 7 14	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	0 7 14
1 8 15	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	1 8 15
2 9 16	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	2 9 16
3 10 17	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	3 10 17
4 11 18	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	4 11 18
5 12 19	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	M	Tu	W	Th	Sa	S	M	Tu	Th	F	Sa	S	5 12 19
6 13 20	Th	Sa	S	M	Tu	Th	F	Sa	S	Tu	W	Th	F	S	M	Tu	W	F	Sa	S	M	W	Th	F	Sa	6 13 20

TABLE 15.

Longitudes and Latitudes of principal places.

Latitude in degrees and first decimal. Longitude in minutes of time, being the difference in time between Lankâ and the place in question.

	Lat.	Long. m.
Âbû (Arbuda)	24·6	—12
Âgrâ	23·2	+ 16
Ahmadâbâd	43·0	—13
Ahmadnagar	19·1	— 4
Ajanta	20·5	— 0
Ajmêr	26·5	— 4
Allahâbâd (Prayâga)	25·4	+ 24
Alligaḍ	27·9	+ 9
Amritsar	31·6	— 4
Anhilwâḍ	23·9	—15
Arcot	12·9	+ 14
Aurangâbâd	19·9	— 2
Bâdâmi	15·9	— 0
Balagâmi or Balagâmve	11·4	— 2
Banawâsi	14·6	— 3
Bardhwân	23·2	+ 48
Baroda (Baḍôda)	22·3	—10
Bârśi	18·2	— 0
Belgaum	15·9	— 5
Benares	25·5	+ 29
Bhâgalpur	25·3	+ 45
Bharatpur	27·2	+ 7
Bhêlsâ	23·5	+ 8
Bhopâl	23·3	+ 6
Bihâr or Behâr	25·2	+ 39
Bijâpur	16·8	— 0
Bijnagar or Hampe.	15·3	+ 3
Bikânêr	28·0	—10
Bombay	18·9	—12
Broach (Bhṛigukachchha)	21·7	—11
Bundi	25·5	— 1
Burhânpur	21·3	+ 3
Calcutta	22·6	+ 50
Cambay or Khambhât (Sthambhavatî)	23·5	+ 8
Cawnpore (Kânpur)	26·5	+ 18
Cochin	10·0	+ 2
Dacca (Dâkâ)	23·7	+ 58
Dehli	28·6	+ 6
Dêvagiri or Daulatâbâd	20·0	— 2
Dhârâ	22·6	— 2
Dhârwâḍ	15·5	— 3
Dholpur	26·7	+ 8
Dhulia (Dhulêm)	20·9	— 4
Dwârakâ	22·2	—27
Ellôra (Vêlâpura)	20·0	— 3
Farakhâbâd	27·4	+ 15
Gayâ	24·8	+ 37
Ghâzîpur	25·4	+ 31
Girnâr	21·5	—21
Goa (Gopakapaṭṭana)	15·5	— 8
Gôrakhpur	26·7	+ 26
Gurkhâ	27·9	+ 34
Gwâlior	26·2	+ 9
Haidarâbâd (in the Deccan)	17·4	+ 11
Haidarâbâd (in Sindh)	25·4	—26
Hardâ (in Gwâlior).	22·3	+ 5
Hardwâr	30·0	+ 9
Hoshangâbâd	20·5	+ 8
Indôr	20·7	— 4
Jabalpur	23·2	+ 16
Jagannâthapuri	19·8	+ 40
Jalgaum	20·4	— 3
Jaypur	26·9	+ 0
Jhânsi	25·5	+ 11
Jôdhpur	26·3	—11
Junâgaḍh	21·5	—21
Kalingapatam	18·3	+ 33
Kalyân in Bombay.	19·2	—11
Kalyân in the Nizam's Dominions.	17·9	+ 1
Kanauj	27·0	+ 16
Kâñchî, or Conjeveram	12·8	+ 16
Katak	20·5	+ 40
Khatmându	27·2	+ 37
Kolâpur	16·7	—11
Lâhôr	31·6	+ 6
Lakhnau	26·9	+ 20
Madhurâ	9·9	+ 9
Madras	13·1	+ 18
Maisûr	12·3	+ 3
Mâlkhêḍ (Mânyakhêta)	17·2	+ 6
Mâṇḍavi in Cutch	20·8	—25
Maṅgalûr	12·9	+ 3
Mathurâ	27·5	+ 7
Mongîr or Mungêr	25·4	+ 43
Multân	30·2	—17
Nâgpur	21·2	+ 13
Nâsik	20·0	—12
Oudhe (Ayôdhyâ)	26·8	+ 26
Paithan	19·4	
Paṇḍharpur	17·7	— 2
Patialâ	30·3	+ 2
Pâtna	25·6	+ 37
Poona (Punêm)	18·5	— 8
Purniyâ	25·8	+ 47
Râmêśwar	9·3	+ 14
Ratnâgiri	17·0	—10
Rêvâ (Rîwâm)	21·5	+ 22
Śâgar	23·8	+ 12
Sahêt-Mahêṭ (Śrâvastî)	27·5	+ 25
Sambhalpur	21·5	+ 33
Sâtârâ	17·7	+ 7
Seringapatam (Śrîrangapattana)	12·4	+ 4
Shôlâpur	17·7	+ 0
Sirońj	24·1	+ 5
Sômnâthpâtan	22·1	—17
Śrînagar in Kaśmir.	34·1	— 4
Surat	21·2	—12
Tañjôr	10·8	+ 10
Thânâ	19·2	—11
Travancore	8·2	+ 5
Trichinopoly	10·8	+ 12
Trivandram	8·5	+ 4
Udêpur or Oodeypore	24·6	— 8
Ujjain	23·2	+ 0
Umarâvatî or Amrâoti	20·9	+ 8

Note.—In order to convert Lankâ time into local time, add or subtract from the former the minutes of Longitude of the place in question as indicated by the sign of plus or minus in the above list.

TABLE 16.

Showing how many minutes the day begins in any place (from 0 to 30 degrees Latitude) before or after Sunrise at Laṅkâ (or 0 hour of the previous tables).

The day begins before Sunrise at Laṅkâ.		Degrees of Latitude.						The day begins after Sunrise at Laṅkâ.	
New Style.		5°	10°	15°	20°	25°	30°	New Style.	
		m.	m.	m.	m.	m.	m.		
21 March..	23 Sept....	0	0	0	0	0	0	23 Sept....	21 March
26 ,, ...	18 ,, ...	1	1	2	3	4	5	28 Sept....	16 ,,
31 March..	13 ,, ...	1	3	4	6	7	9	3 Oct. ...	11 ,,
5 April ...	8 ,, ...	2	4	6	9	11	14	8 ,, ...	6 ,,
10 ,, ...	3 ,, ...	3	6	9	12	15	19	13 ,, ...	1 March.
15 ,, ...	28 Aug....	4	7	11	15	19	23	19 ,, ...	23 Feb. ...
21 ,, ...	22 ,, ...	4	9	13	18	23	28	24 ,, ...	18 ,, ...
27 April ...	16 ,, ...	5	10	15	21	27	33	29 Oct. ...	12 ,, ...
3 May ...	10 ,, ...	6	12	18	23	31	38	5 Nov....	6 Feb. ...
10 ,, ...	3 ,, ...	7	13	20	27	35	43	12 ,, ...	30 Jan. ...
18 ,, ...	26 July ...	7	15	22	31	39	49	18 ,, ...	23 ,, ...
25 ,, ...	19 ,, ...	8	16	25	34	43	54	25 Nov. ...	17 ,, ...
29 May ...	15 ,, ...	9	17	26	36	46	57	1 Dec. ...	12 Jan. ...
22 June ...	22 June ...	9	18	27	37	48	60	21 Dec. ...	21 Dec. ...

To convert Old Style into New Style :—

Between		add	days.
400 & 500	,,	1	,,
500 ,, 600	,,	2	,,
600 ,, 700	,,	3	,,
700 ,, 900	,,	4	,,
900 ,, 1000	,,	5	,,
1000 ,, 1100	,,	6	,,
1100 ,, 1300	,,	7	,,
1300 ,, 1400	,,	8	,,
1400 ,, 1500	,,	9	,,
1500 ,, 1700	,,	10	,,

Note.—The days in this Table are registered in New Style, whereas in the previous Tables Old Style is used. Hence a date in Old Style must first be converted in the corresponding one in New Style.

TABLE 17.

Table of the Nakshatras and Yôgas.

No.	Nakshatra.	Index.	Index for the ending-points of the nakshatras according to		Yôga.	No.
			Brahma S.	Garga.		
1	Aśvinî	0— 37	37	37	Vishkambha	1
2	Bharaṇî	38— 74	55	56	Prîti	2
3	Kṛittikâ	75—111	91	93	Ayushmat ..	3
4	Rohiṇî	112—148	147	148	Saubhâgya .	4
5	Mriga or Mṛiga-śîrsha	149—185	183	185	Śôbhana ...	5
6	Ardrâ	186—222	201	204	Atigaṇḍa ...	6
7	Punarvasu	223—259	258	259	Sukarman ..	7
8	Pushya	260—296	293	296	Dhṛiti	8
9	Âślêshâ............	297—333	311	315	Śûla	9
10	Maghâ	334—370	348	352	Gaṇḍa	10
11	Pûrvâ-Phâlgunî.	371—407	382	389	Vṛiddhi ...	11
12	Uttarâ-Phâlgunî	408—444	439	444	Dhruva......	12
13	Hasta	445—481	476	481	Vyâghâta ...	13
14	Chitrâ	482—518	513	518	Harshaṇa ...	14
15	Svâtî	519—556	531	537	Vajra	15
16	Viśâkhâ	557—593	586	593	Siddhi Asrij)	16
17	Anurâdhâ	594—630	622	630	Vyatîpâta...	17
18	Jyêshṭhâ	631—667	641	648	Varîyas ...	18
19	Mûla	668—704	677	685	Parigha ...	19
20	Pûrvâ-Ashâḍhâ .	705—741	714	722	Śiva	20
21	Uttarâ-Ashâḍhâ	742—778	768	778	Siddha	21
22	Śravaṇa	779—815	817	815	Sâdhya	22
23	Śravishṭhâ, or Dhanishṭhâ ...	816—852	853	852	Śubha	23
24	Śatabhishaj, or Śatatârakâ	853—889	872	876	Śukla.........	24
25	Pûrvâ-Bhadra-padâ...............	890—926	909	908	Brahman ...	25
26	Uttarâ-Bhadra-padâ	927—963	963	963	Indra	26
27	Rêvati	964—1000	1,000	1,000	Vaidhṛiti ...	27

Table for Differences.

Δ	Naksh.	Yoga.
	H. M.	H. M.
1	0–39	0–37
2	1–19	1–13
3	1–58	1–50
4	2–38	2–27
5	3–17	3– 4
6	3–56	3–41
7	4–36	4–1[illegible]
8	5–16	4–[illegible]
9	5–55	5[illegible]
10	6–34	
20	13– 8	
30	19–42	1[illegible]

Note. Sometimes an extraordinary *nakshatra*, Abhijit, is inserted between Uttarâ-Ash[illegible] Śravaṇa. In that case, Abhijit has as Index 769-782. The Index for the endin[illegible] point[illegible] according to the Brahma-Siddhanta system, is 780.

GURJARA INSCRIPTIONS, NO. III.
A NEW GRANT OF DADDA II. OR PRASANTARAGA.

BY G. BÜHLER, PH.D., LL.D., C.I.E.

THE subjoined inscription[1] is engraved on two copper plates, found some years ago at **Bagumrâ**, in the Palsana Taluka of the Nausâri District in the **Baroda State**. I acquired them with some others, published in this Journal, Vol. XII. pp. 179-190 and Vol. XIII. pp. 65-69, by myself and Dr. E. Hultzsch, through the kind mediation of Rao Saheb Mohanlâl R. Jhaveri. The circumstances of the find have been mentioned in the former paper.

The measurements of the **plates** are about $10\frac{1}{4}''$ by $7''$, and $\frac{3}{16}''$ thick. The massive **rings** are preserved and in their proper position. To the right-hand ring the **seal** is attached; it shews, like those of the published grants of the same king from Umêta and Ilâo, the legend *śrî-Dadda* and a square emblem the character of which is not clear. The engraving has been done well. The letters are deeply cut and distinct. Only a few have suffered seriously or been destroyed by verdigris. The **characters** resemble those of the other two grants very closely. The word *vâsakrit* (l. 1) shews, as in the latter, the cursive form of *va*, which looks like *na*. The royal signature (l. 32) is written in the antiquated Nâgarî letters, which the Umêtâ grant also exhibits. The spelling and the grammar of the Sanskrit text are as slovenly and faulty as in the other two grants, with which the wording of its first portion agrees almost literally. But it must be noted that, though the character of the mistakes is the same, they do not always occur in the same words. Thus, in l. 1, U. reads *[illegible]*,[2] B. and I. *[illegible]*; in l. 3, U. and B. read *[illegible]* and *[illegible]*, I. *[illegible]* and *[illegible]*; ibidem U. reads *[illegible]*, B. and I. *[illegible]*; in l. 4, U. reads *[illegible]*, B. and I. *[illegible]*. In other cases B. alone has a faulty form and in one case, l. 4, where the context requires *klishta*, each grant shows a peculiar mistake, U. reading *[illegible]*, B. *ślishta*, and I. *[illegible]*. These facts prove that all three grants were prepared according to the same model form, but that the writers were, as the documents themselves assert, three different persons, all three distinguished by carelessness and ignorance of the classical language.

The contents of this new grant are as follows:—The 'supreme king of great kings,' the illustrious **Dadda II.**, who had obtained the five *mahâśabdas* and who was the son of the illustrious Jayabhata and the grandson of the illustrious Dadda I., presents the village of Tatha-Umbarâ to a Brahman on the occasion of an eclipse of the sun, which happened on the new-moon day of the month Jyaishtha, when 415 years of the Saka king had elapsed. The village was situated in the *âhâra* [illegible][3] or district of Tatha-Umbarâ. Its boundaries were, to the east the village of Ushilathana, to the south Isha, to the west Samkiya, and to the north Jaravadra. The donee was Bhatta Gôvinda, the son of Bhatta Mahîdhara, who belonged to the community of the Chaturvêdins of Kanyakubja, *i.e.* to the Kanôjiâ Brahmans of Gujarât, to the Kauśika-gôtra, and to a school of the adherents of the Chhandôga-Sakha. He received the village in order to defray the expenses of the five so-called great sacrifices and of other religious ceremonies. The conditions of the grant are the usual ones. The charter was written by the royal servant Rêvaditta, or, as the correct form of the name would be, Rêva[illegible], the son of Dâmôdara. Like the other two grants, it is dated from the victorious camp or cantonment (*[illegible]*), situated at the gates of the town of **Bharukachchha**.

The date and the geographical names are the only new points contained in the inscription, which require further remarks. The former seems to contain a mistake in the

---

[1] A German paper on this inscription has been published in the Sitzungsberichte der Wiener Akademie der Wissenschaften Vol. CXIV. p. [illegible].

[2] In order to save space I will [illegible] the Umêta grant, U. [illegible] from Ilâo, I. [illegible] B.

[3] To my remarks on the word [illegible] Vol. VII. p. 71, I may now add that it occurs also in Buddhist [illegible]. In a note to *Sacred Books of the East*, Vol. XI. p. 31, Dr. Rhys Davids adduces for the word [illegible] from the commentary the explanation [illegible]. The meaning of [illegible] or [illegible] is not [illegible]. Possibly the word is a corruption of [illegible] to indicate that the [illegible] twelve [illegible].

name of the month. According to Dr. Schram's calculations the new-moon day of Jyaishṭha, Saka-Samvat 415, corresponds to May 31, 493 A.D. On that day there was no eclipse of the sun, which, as the inscription asserts, occurred on the day when the grant was made. But on the next new-moon day, June 29, there was an annular eclipse, not visible in India. (See also Th. v. Oppolzer, *Canon der Finsternisse* No. 4037 and Blatt. 81 where the astronomical details regarding the eclipse are given.) It seems probable that this eclipse is meant. The discrepancy in the name of the month may have been caused by a mistake of the writer or by an erroneous intercalation. However that may be, the date possesses little importance for the history of Dadda II.; as the oldest of his other grants (U.) is dated fifteen years earlier, and the latest (I.) two years later than our inscription. The date of the former is the full-moon day of Vaiśâkha, Saka-Samvat 400, and that of the latter, the new-moon day of Jyaishṭha, Saka-Samvat 417.

More interesting are **the geographical names.** With the help of the map of the Trigonometrical Survey, Gujarat Series, No. 34, it is possible to identify nearly all the places mentioned. The village of **Tatha-Umbarâ** is the modern **Bagumrâ**, where the plates were found. For the boundaries are—

According to the Inscription.	According to the Map.
to the west Saṅkiya.	to the west Sanki.
to the south Ishi.	to the south the old site of Isi.
to the north Jaravadra.	to the north Jolwa.
to the east Ushilathaṇa.[4]	to the east a deserted site with an old village-tank.

Though the fourth village cannot be traced to its proper position, the names of the other three suffice in order to prove the identity of Tatha-Umbara and Bagumra. As regards the latter two words the second parts *umbarâ* and *umrâ* are corruptions of Sanskrit *udumbara*, a thicket of *Ficus glomerata*. This word is still frequently used for naming villages and the maps show in the districts close to the Taptî a full half dozen of villages, called Umrâ. It is, therefore, very probable that the syllables Tatha and Bag have been prefixed in order to distinguish this Umbara (Umra) from other homonymous places. What the meaning of Bag may be I am unable to guess. But Tatha may possibly be a corruption of the Prakrit *tittha* and Sanskrit *tîrtha*. The value of the above identifications is that they prove the dominions of the Gurjara princes to have extended south of the Taptî. I must confess that formerly I believed that the southern boundaries of the Gurjara state had been identical with those of the present Collectorate of Broach, and I find that all other scholars, who have touched the question, have expressed the same opinion. On looking over Nos. 34 and 35 of the map of the Trigonometrical Survey (Gujarat Series) I have, however, discovered that the Umetâ grant confirms the information which that of Bagumrâ furnishes. The villages, named in the former, are likewise traceable, and lie a few miles to the north-east of those mentioned in the latter.

According to U., plate II., l. 11, the village granted was Nyguda, which belonged to the 116 villages of the *bhukti* of Kamaṇiya. This is the modern Nagôd, which lies at a short distance west of the town of Kamrêj.[5] For its boundaries are—

According to the Inscription	According to the Map.
to the east Vaghauri.	to the east Rudhvârâ.[6]
to the south Phalahavadra.	to the south [Mota] Phalod.
to the west Vihâra.	to the west Vihâr
to the north Dahithali.	to the north Dêthli

Though a village, the name of which corresponds to Vaghauri, is not found, the close resemblance of the remaining names suffices to

[4] [illegible] ... the map ... [illegible] ... similar resettlements of villages occur [illegible]

[5] Kamrej is mentioned in Mr. H. H. Dhruva's [illegible] ... pp. 122-23 ... [illegible] ... from Gujarat ... [illegible] ... Kamaṇiya. Dr. Bhagvânlâl [illegible] ... to be identical with Kamrej, ten miles east of Surat, [illegible] I suppose is the Kamrej of the Map.

[6] I consider it not improbable that this name is a mistake for [illegible] ... caused by the resemblance of [illegible] ... Vihâra.

make the proposed identification incontrovertible. It is, therefore, certain that according to U. and B. the northern portion of the Surat District and the adjacent Gaikwâḍî territory formed part of the Gurjara kingdom.

More important even than this result is the fact that **the discovery of B. permits us to assert with full confidence the genuineness of U. and I.**, which has been disputed by Dr. Bhagvânlâl and by Mr. Fleet. But before I try to show the bearing of B. on this question, it seems to me advisable to subject the arguments, brought forward against U. and I., to a careful consideration. It seems to me that they are by no means so strong as the two eminent epigraphists suppose, and that a good deal may be said against them, even without extraneous assistance.

In order to accomplish this task, I must begin with **a short review of the gradual development of our knowledge and of the theories regarding the Gurjara dynasty.**

The name of the Gurjaras first became known through **Dr. Burns' four Khêḍâ plates**[7] which mention (1) the illustrious *Sâmanta* or feudal baron Dadda I., (2) his son the illustrious Jayabhaṭa-Vîtarâga, and (3) his son the illustrious Dadda II. or Praśântarâga, all of whom were worshippers of the sun or adherents of the Saura sect.

Their dates, Saṁvat 380 and 385, were taken to refer to the so-called Vikrama era, until a third grant, **Dr. Bhâṇḍârkar's Ilâo plates**,[8] was discovered. The latter names likewise three princes, (1) the illustrious Dadda I., (2) the illustrious Jayabhaṭa-Vîtarâga, and (3) the illustrious supreme king of great kings Dadda II.-Praśântarâga. Relying on the identity of the names and of the *birudas*, Dr. Bhâṇḍârkar assumed that the princes of I. were the same persons as those mentioned in Khê. I. and II. But, as the date of I. was clearly the year 417 of the Śaka era, and as the eclipse of the sun, stated to have occurred on the new-moon day of the month of Jyaishṭha, corresponded, according to Professor Kerô Lakshman's calculation, to that of June 8, 495 A.D., he transferred the three Gurjara princes from the fourth to the fifth century and assumed that the dates of Khê. I. and II. referred to the same era.

I accepted these combinations in my articles on **the Kâvi**[9] **and Umêtâ**[10] **grants**, which next came to light. The historical contents of the latter fully agree with those of I. Its date, full-moon day of Vaiśâkha, Śaka-Saṁvat 400, fitted in well with those already known, which apparently lay between the years 380 and 417 of the same era. Kâ., of which only the second part has been preserved, names only one prince, the illustrious lord of feudal barons Jayabhaṭa, who vanquished a king of Valabhî. I identified him with the Jayabhaṭa of the other grants and referred the date, Saṁvat 486, tenth day of the bright half of Âshâḍha, a Sunday, to the Vikrama era, and thus arrived at the year 429 A.D., which was not too early for the father of Dadda II.

These views were considered to be right for several years and were utilised by Mr. Fleet in his article on the Indian eras, *ante*, Vol. XII. p. 291 and by General Sir A. Cunningham in his Book of Indian Eras, pp. 48-49. But matters changed when Dr. Bhagvânlâl published his important **inscription from Nausâri.**[11] This document mentions four princes,—(1) the illustrious Dadda I.; (2) his son the illustrious Jayabhaṭa I.; (3) his son the illustrious Dadda II.-Bâhusahâya, an ardent devotee of Śiva; and (4) his son the illustrious Jayabhaṭa II., an ardent devotee of Śiv. Of Dadda I. it narrates that he protected a prince of Valabhi against the supreme lord (*paramêśvara*) Śrîharshadêva. Its date is Monday or Tuesday, the full-moon day of Mâgha, Saṁvat 456, at the time of an eclipse of the moon. The mention of the supreme lord Śrîharshadêva and the lucky discovery of some grants of the Chalukyas of Gujarât with dates according to two different eras enabled Dr. Bhagvânlâl to offer an altogether new theory regarding

---

[7] Published by Mr. J. Prinsep, *Jour. B. Br. R. A. S.* Vol. VII. pp. 908 ff.; by Professor Dowson, *Jour. R. A. S.* N. S. Vol. I. pp. 247 ff. [illegible] by Mr. Fleet, *ante*, Vol. XIII. pp. 81 ff. [illegible] after Khê. I. and Khê. II.

[8] Published by Dr. R. G. Bhâṇḍârkar, *Jour. Bo. Br. R. A. Soc.* Vol. X. pp. 19 ff. [illegible] by Mr. Fleet, *ante*, Vol. XIII. pp. 116 ff.

[9] *Ante*, Vol. V. pp. 109 ff. [illegible] Mr. Fleet's Sanskrit, Pali and Old-Kanarese Inscriptions, No. 72. [illegible]

[10] Published [illegible] *ante*, Vol. VII. pp. 61 ff.

[11] *Ante*, Vol. XIII. pp. 70 ff. [illegible]

the Gurjaras of Broach and their inscriptions. He very naturally identified Śriharshadêva with Sriharsha-Harshavardhana, the famous king of Thânêsar and Kanauj, who ruled from 606 to 648 A.D. over the greater part of Northern and Western India. If this identification was to stand, the reign of the first Dadda, mentioned in Na., must fall in the first half of the seventh century A.D. The possibility of proving this was given by the inscriptions of three nephews of Pulikêśin II. of Bâdami (610-634 A.D.), *viz.* Śilâditya, Mangalarâja and Pulakêśin, sons of Jayasimhavarman, who ruled over southern Gujarât as feudatories of the Western Chalukyas. Their grants being dated Samvat 421, Samvat 443, Saka-Samvat 653 and Samvat 490, it followed that an era, simply marked by the word Samvat and beginning shortly before 250 A.D., was used in Gujarat during the seventh and eighth centuries. Fixing its initial date conjecturally in 244-45 or 245-46, and assuming that the date of Na., Samvat 456, referred to it, Dr. Bhagvânlâl obtained for the latter the year 700 or 702 A.D., and thereby the probability that the first Dadda, the third ancestor of the donor of Na., reigned between 600-625, or even somewhat later. As Khê. I., Khê. II. and Kâ. likewise bear dates simply marked Samvat, it became probable that the era intended was the same as that of Na. With this supposition Samvat 380 corresponded to 624-626 A.D. and Samvat 385 to 629-631 and it appeared that the donor of the Khêḍâ grants, Dadda II.-Praśantarâga, was the same person as the first Dadda of Na. The Kâvi date, Samvat 486, on the other hand, being now equal to 730-731 A.D., its Jayabhata, the lord of great feudal barons, had to be considered as identical with the donor of Na. By means of these highly ingenious combinations, the probability of which Dr. Bhagvânlâl believed to be increased by epigraphic arguments, he obtained the following pedigree of the Gurjara dynasty: (1) Dadda I., the feudal baron, (2) Jayabhaṭa I.-Vîtarâga, (3) Dadda II.-Praśântarâga, Samvat 380-385, or 624-631 A.D., a contemporary of king Sriharsha, 600-648 A.D., (4) Jayabhata II., (5) Dadda III.-Bâhusahâya, (6) Jayabhata III., Samvat 456-486, or, 700-2 to 730-2 A.D. As the statements of U. and I. which placed Dadda II.-Praśântarâga in the fifth century, did not seem to agree with these results, Dr. Bhagvânlâl declared them to be spurious and contended that they must be forgeries, (1) because U. and I. in spite of the alleged interval of seventeen years resemble each other so much that they must have been written by the same person, (2) because they closely resemble a spurious grant of Dharasêna II. of Valabhi,[12] which has been fabricated by the same forger, (3) because it is alleged that I. has been written by the same writer Rêva, who drew up Khê. I and II. He thought it, however, not impossible that the spurious grants might contain correct dates for the reign of Dadda II., if it might be assumed that the forger had only made a mistake with respect to the era.

A portion of Dr. Bhagvânlâl's conjectures was apparently confirmed by a discovery of Sir A. Cunningham, which Mr. Fleet published in a postscript to the article. The nearness of Dr. Bhagvanlâl's initial date 244-246 A.D. to 249-50 A.D., the supposed beginning of the Chêdi era which the Kulachuri or Haihaya kings of Tripura used, led Sir A. Cunningham to suspect that the latter might be the Samvat occurring in the Gurjara and Chalukya inscriptions. Calculating on this supposition the date of Na., "Monday or Tuesday, 15th day of the bright half of Mâgha of Samvat 456, at the time of an eclipse of the moon," he found that it corresponded to February 2, 706 A.D., a Tuesday, on which date an eclipse of the moon actually happened. On the same supposition the week-day of Kâ. had been given correctly. For Chêdi-Samvat 486, 10th day of the bright half of Âshâḍha, corresponds to June 24, 736, which was a Sunday. Sir A. Cunningham also calculated the date of I. on the supposition that Saka-Samvat had been written erroneously for Chedi-Samvat. The result was that though no eclipse happened in the month of Jyaishṭha of the exactly corresponding year 666, this was the case in the preceding one, 665 A.D., when the new moon of Jyaishṭha fell according to the *[illegible]* reckoning on April 21. Hence the possibility, that the date of I. was as

[12] See my article *ante* Vol. X. pp. 277ff.

Dr. Bhagvânlâl thought, a genuine one, could not be denied.[13] In his later article on the Ilâo grant, Mr. Fleet added two new arguments against the genuineness of U. and I. to those brought forward by Dr. Bhagvânlâl. First he pointed out that the description of Dadda I. given in Khê. I. and II. agrees literally with that of Dadda II. in U. and I.; and that the latter grants show some corrupt readings not occurring in the former. Hence he inferred that the author of U. and I. must have known the Khêḍâ plates and have copied from them. As the Khêḍâ plates had been shown to belong to the seventh century, U. and I. could not possibly have been written in Saka-Saṁvat 400 and 417, or 478 and 495 A.D. Secondly, he remarked that no weight could be attached to the apparently correct mention of the solar eclipse of June 8, 495 A.D., in I., because it was not visible in India and for this reason would not be noticed by an Indian astronomer.

Of late, the correctness of Sir A. Cunningham's view regarding the initial date of the Chêdi has been disputed. Dr. Kielhorn's calculations of the numerous week-days mentioned in the grants of the Chêdi kings tend to show[14] that it began not in 249, but in 248 A.D.[15] This alteration makes no difference for the week-day and the lunar eclipse mentioned in Na. They agree with either assumption. In the one case the year 456 has to be taken as current, in the other as elapsed. But the complicated data in Kâ., which alleges that the grant was made in Saṁvat 486 on Âshâḍha śu di 10, when the sun had entered the sign of Karkaṭaka, offer a difficulty which Dr. Kielhorn has not yet found it possible to solve.[16]

Nevertheless, I believe that **among the various inferences drawn by Dr. Bhagvânlâl** from the contents of Na., and from the Chalukya dates, **the following may be considered as correct.** (1) Na. is certainly dated according to the Chêdi-Saṁvat; and the supreme lord Śrîharshadêva, mentioned as the contemporary of its first Dadda, is the same person as Śrîharsha-Harshavardhana, *alias* Śîlâditya. (2) It seems most probable that Kâ., too, belongs, not as I thought formerly, to the fifth, but to the eighth century A.D. Dr. Bhagvânlâl's further inference that Na. and Kâ. have been issued by the same Jayabhaṭa, may be also accepted provisionally. The interval between their two dates is not too long for one reign. But the possibility that the donors may be different persons, between whom another Dadda reigned, is not altogether excluded. Dr. Bhagvânlâl's assertion that the close resemblance of the characters of the two inscriptions and of their form or wording show them to belong to the same reign, says too much. The characters of two grants, only thirty years apart, will not show any great difference, whether they were issued by one or by two different kings of the same dynasty. The wording of the two documents does not at all agree. The descriptions of Jayabhaṭa in Na. and Kâ. have only two words in common, *samadhigatapañchamahâśabda* and *śrî*, and the enumeration of the conditions of the grant shows many discrepancies. And (3) I must also agree with Dr. Bhagvânlâl in his assumption that Khê. I. and II. belong not to the fifth but to the seventh century, though I am unable to accept his arguments. He said "the characters of the Kaira, Nausârî and Kâvî grants are all precisely of the same type and as like each other as can possibly be the case of inscriptions, the actual engraving of which was done by different men. On the other hand, the characters of the Umêtâ and Ilâo grants are identical with each other and differ entirely from those of the four grants." These sweeping assertions are not quite borne out by the facts. Even a superficial comparison of the facsimiles shows that the characters of Khê. I. and Khê. II. do not fully agree, and that they agree still less with Na. and Kâ. On the other hand, Khê. I. frequently agrees with U. and I. Thus the signs for *ja*, *ba* and *ra* are exactly the same in U. I. and Khê. I. The

[13] As the following discussion will show that the suspicions against U. and I. are unfounded, I shall not again refer to this point. But I may add that April 21, 665 was, according to the *Amânta* reckoning of the Gujarâtis, the new-moon day of Vaisâkha, not of Jyaishṭha.

[14] See his letters in the *Academy* of Dec 10 and 24, 1887.

[15] Dr. Bhagvânlâl held to the last that the Chêdi Saṁvat is identical with that of the Traikûṭakas. In his paper on two new Chalukya inscriptions, published in the Verhandlungen des siebenten Inter. Or. Congresses Arische Section, he made pp. 219-222 some very ingenious suggestions as to its origin. He conjectured that Śaka-Saṁvat 170 or 248 A.D. was its initial point.

[16] See Dr. Kielhorn's letter in the *Academy* of Jan 14, 1888

ba with a notch in the top line occurs in none of the other inscriptions, the *ja* with the same peculiarity only in Kâ., and the *va* in the shape of an isosceles triangle, only occasionally in Na. and Kâ. Again the form of *ṇa* agrees throughout in I. U. and Kâ., while a different sign is used once in Khê. I., more frequently in Khê. II. and throughout in Na. Similarly the peculiar *cha* of U. and I. occurs in Kâ,, while Khê. I. Khê. II. and Na. have a very different sign. These instances will suffice to prove that Dr. Bhagvânlâl's grouping of the grants on palæographic principles is not tenable. If I nevertheless accept his conclusion, my reasons are (1) that, if a Gurjara inscription of Saṁvat 456 is dated according to the Chêdi era, it is most probable that those of Saṁvat 380 and 385 refer to the same era, (2) that hitherto no certain cases from the older times have become known in which the word Saṁvat stands for Śaka-Saṁvat or Śakanṛipakâla.

Dr. Bhagvânlâl's remaining inference, that U. and I. are forgeries, seems to me untenable. His first argument, the assertion that their perfect agreement in characters and form shows them to have been written by one and the same person, rests, it seems to me, on an insufficiently accurate comparison of the two documents. It is no doubt true that they are very similar. But their resemblance is just such a one as might be expected in the case of two grants written by a father and son in an archaic alphabet, not in daily use. The main features mostly agree, but in the details various small differences are observable. Thus in U. the left hand stroke of the *ta* is drawn down much further than in I.; the top of *ṭa* shows in I. frequently, *e. g.* in *makuṭô* (l. 4) *ghaṭâ* (l. 6) *sphaṭika* (l. 8) etc. a straight horizontal line which is wanting in U.; the use of the superscribed *mâtrâ* and of the *prishṭhamâtrâ* does not agree in the two documents; finally the signature of the king shows in U. cursive Nâgarî characters and in I. the same alphabet in which the rest of the inscription is written. Again, as regards the wording quite a number of discrepancies occur. It has already been pointed out above that, though the character of the numerous mis-spellings and mistakes is the same, they do not always occur in the same words. There are further some more or less important various readings, such as, *sampatka* (U. pl. I. l. 12) against *sampanna* (I.), *charchitâṅgasamunnata* (U.) against *charchitasamunnata*; and very considerable deviations in the description of the boundaries of the villages granted (U. pl. II. ll. 2-3 and I. pl. I. l. 15). The natural explanation of these facts is, I think, that the two grants were written by two different persons. Of course, they *may* also be reconciled with the theory that both belong to one forger. But it seems to me impossible to assert that the agreement of the inscriptions is such that they *must* be considered the work of one hand.

The same remarks apply to Dr. Bhagvânlâl's second argument, that the plates must be forgeries, because they closely resemble the admittedly forged grant of Dharasêna II., dated Śaka-Saṁvat 400, and have been evidently fabricated by the forger of the spurious Valabhî inscription. The latter again shows a number of very striking peculiarities in the alphabet not found in U. and I. The upper end of the superscribed *mâtrâ* has a strongly marked curve and the same flourish appears at the lower end of the left limb of *ta*. Further, in the syllables *ṇâ*, *ṇô* and *ṭâ* the *â*-stroke is marked by a vertical line turned upwards.[17] Moreover the subscribed *ña* in *samâjñâpayati* (pl. I. l. 16), *yajña* (pl. II. l. 2) and *ajñâna* (pl. II. l. 12) resembles that of Skandagupta's Kahâuṁ inscription, not that of U. and I. Again, in the letter *pha* the little tail, drawn through the bottom line, which U. and I. show, is wanting. Finally in the groups beginning with *s*, e. g. *sta, sva, sma,* etc., the lower letter is invariably attached to the right-hand vertical of *sa,* while in U. and I. it is connected with the left-hand limb.[18] These very striking differences in the characters, as well as numerous various readings in the otherwise similar portions of the texts, and some very peculiar grammatical mistakes, make it, to my mind, most improbable that the spurious Valabhî grant was done by the same person as U. and I. On the contrary, they prove that the forger was acquainted with at least one of

[17] Compare *e.g.* (*ante*, Vol. X. pp 283-284) pl. I. l. 3. *charaṇâśa*, l. 6 *karaṇâ* and *nipuṇatara*; l. 8 *kiraṇâ*; l. 14 *dhishaṇo*; l. 15 *bhaṭṭâraka* and *grâmakûṭâ*.

[18] Compare *e.g.* the first word *svasti* in the three inscriptions.

these documents, but that in using it as his model he failed to catch and to reproduce all its striking peculiarities. Dr. Bhagvânlâl's last argument, that the writer of I. is stated to be the same person as that of Khê. I. and II., rests on an identification for which there is absolutely no good reason. The writer of the latter two grants was "the minister for war and peace Rêva," and that of I., "the minister of war and peace Rêva, the son of Mâdhava." As in Khè. I. and II. the father's name is not given, and as among the Gujarâtî Brâhmaṇs the name Rêva, or Rêvâśaṅkar as we should say at present, is as common as Jack or George among Englishmen, it is not in the least necessary to consider the two writers as the same person. Consequently, it is not possible to contend with Dr. Bhagvânlâl, that I. is proved to be a forgery, because it contains the assertion that its writer is the same person as the writer of Khê. I. and Khê. II.

The additional arguments, brought forward by Mr. Fleet, seem to me likewise inconclusive. It is perfectly correct that the description of Dadda I. in I. and U. agrees literally with that given in Khê. I. and II. of Dadda II. It is further true that the latter inscriptions offer in this passage at least three better readings than I. and U.—*sakalaghanapaṭalavinirgatarajanîkara*,[19] 'the full moon that comes forth from a bank of clouds' is grammatically less correct than *sajalaghanapaṭalavinirgatarajanîkara*, 'the moon that comes forth from a bank of water-laden clouds.' For the first adjective *sakala* ought on account of its position to qualify *ghana*, not the remote *rajanîkara*. Nevertheless the Kâvyas and the inscriptions offer numerous instances in which the position of the parts of compounds is not always the natural one. If one part of a compound is a short word and the other a longer one, it happens frequently that the natural order is inverted. The short word is usually placed first. The sense of the reading of I. and U. is preferable, because it yields an additional compliment for the king. As regards the variæ lectiones °*yaśaḥpratâpasthagitanabhômaṇḍalaḥ* and °*phalôdgîyamâna*°[20] for °*yaśaḥpratânâsthagitanabhômaṇḍalaḥ* and °*chchhalôdgîyamâna*,° their sense is certainly not good, and it looks as if they had been caused by misreading of the old aksharas *nâ* and *chha*.[21] Finally, it is absolutely certain that °*arthijanâślishṭa*° (U.) and °*arthijanachlishṭa*° (I.) are mistakes for °*arthijanaklishṭa*°, which latter form is, curiously enough, not found in any inscription. Khê. I. gives °*arthijanâklisha*° and Khê. II. *arthijanâklishṭa*°, and both thus too show blunders in this passage. But even if we concede for argument's sake that Khê I. and II. have in all four cases the better reading, it by no means follows that I. and U. must have been written after Khê. I. and Khê. II. and hence be forgeries. For in other cases where we have a series of undoubtedly genuine inscriptions of the same dynasty, we find occasionally better readings in the later documents and inferior ones or simply corruptions in the older ones. Instances of this kind occur rather frequently in the grants of the kings of Valabhî. Thus the grant of Śîlâditya VI. dated Saṁvat 441, is fearfully corrupt, and the description of the donor hardly intelligible, while that of his son and successor, Śîlâditya VII.-Dhrûbhaṭa, is very much better.[22] Again in the inscriptions of the Râshṭrakûṭas of Gujarât, dated Śaka-Saṁvat 734 and 749, the identical verse 1 is seriously corrupt in the former and nearly correct in the latter.[23] Moreover, verse 5 of the grant of 734, which is identical with verse 33 of the grant of 749, contains a reading, *nidêśanaṁ*, which, as Mr. Fleet remarks l. c. p. 159, note 13, is not as good as that of the second, *nidarśanaṁ*. These two inscriptions furnish also the proof that the authors of the *Vaṁśâvalis* certainly did use the same verses for the description of different kings. In the grant of 734 the just mentioned verse 5 says,—"when on some occasion or other a discussion arose regarding good government, it was

[19] See, below the text, Pl. I. l. 1. I have formerly construed *sakala* erroneously with *ghana*.

[20] See below the text Pl. I. ll 2 and 3.

[21] A carelessly made *nâ* would nearly look like *pa*, and *chha* (not *chchha*, as Khê. I. and II. read) might easily be read as *pha*.

[22] See *ante*, Vol. VI. p. 16ff and Vol. VII. p. 79ff.

[23] See *ante*, Vol. XII. p. 158, and Vol. V. p. 145. The first inscription reads, स वोऽयाद्वेधसा येन यत्राभिकमलङ्कृतं हरश्च यस्य कान्तेन्दुकलया समलङ्कृतं ॥ This is simply nonsense. The second has merely one mistake, caused by the pronunciation, स वोऽयाद्वेधसो धाम जन्नाभिकमलंकृतं । हरश्च यस्य कान्तेन्दुकलया कमलंकृतम् ॥

formerly, forsooth, (customary to note as) an instance the reign of (king) Bali, during which all men enjoyed prosperity; now, however, (they name) on earth (that) of this king." The king, to whom this compliment is paid, is Karka I. In the grant of 749 it is inserted in the description of Karka II., the sixth descendant of Karka I. Again, verse 9 of the grant of 734 is identical with verse 34 of the grant of 749. In the former it refers to Krishṇa I., in the latter to Karka II. It has never occurred to any one to declare the Valabhî grant of Saṁvat 441 and the Râshṭrakûṭa grant of Saka-Saṁvat 734 to be forgeries, because later ones of the same series show better readings in the identical passages, or because verses, describing an earlier king, refer in a later grant to one of his successors. Thence, it is not permissible to use these points as arguments against the genuineness of I. and U. and to assert that they prove these plates to have been engraved after Khê. I. and II. On the contrary, if one closely examines the wording of the two sets of documents, it seems to me evident that it proves I. and U. to be the older ones. For their *Vaṁśâvali* has throughout the same character. Each of the three kings is described by a few epithets, mostly long Bahuvrîhi compounds. The *Vaṁśâvali* of Khê. I. and II. on the other hand, shows a curious incongruity. The first Dadda and Jayabhaṭa are described in highly artificial language, by a string of rather common-place but extravagant comparisons. With Dadda II. the style changes and the description becomes simple and shorter. This disparity seems to indicate that the court-poet, who composed the *Vaṁśâvali*, tired, when he had shown his art in praising two kings, and copied the rest of his work from the older model form.

With respect to the eclipse of the sun, I cannot agree with Mr. Fleet in his opinion that a Hindu astronomer or astrologer would not notice an invisible eclipse.[24] The great majority of the eclipses mentioned in the inscriptions were no doubt visible, and the reason is that on the occasion of a visible eclipse fasting, bathing and gifts are according to the Brâhmanical law highly meritorious, nay absolutely necessary. On the occurrence of a calculated eclipse of the sun which falls in India before sunrise, or of an eclipse of the moon which falls in India before sunset, these observances are not required. The mediæval Nibandhas, known to me, agree on this point, and some of them adduce passages of rather doubtful Smṛitis, such as the *Shaṭtriṁśat*[25] as their authorities. The restriction of obligatory gifts to visible eclipses, however, does not preclude the possibility that kings who wished to make gifts chose intentionally, in case no visible eclipse was close at hand, the day of an invisible one, and that they still believed to have secured for themselves the great rewards promised for a gift made *grahaṇaparvaṇi*. In such a case the invisible eclipse would of course be entered in the grants. And there is yet another circumstance, which, as Dr. Schram has pointed out to me, would explain the occasional mention of invisible eclipses. According to him the methods for the calculation of eclipses, known to the older Hindu astronomers, were so rough and primitive, that they made it very difficult to determine with certainty whether an eclipse would be visible in any given place. He thinks that errors on this point must have frequently occurred, and that such errors may have easily escaped detection, in case the eclipses were partial and occurred during the rainy season, when the sky is not rarely clouded for weeks. Under such circumstances an invisible eclipse would of course be treated like a visible one. For though an eclipse, believed to be a visible one, is not actually observed, the sky being covered by clouds, the prescribed observances are yet obligatory.[26] It would, therefore, seem that the eclipse, mentioned in the Ilâo grant which fell in June, the beginning of the rainy season in Western India, may have been considered to be a really visible one and have been treated as such.

These remarks will suffice to show that **the arguments, brought forward against the genuineness of I. and U. are by no**

[24] "The opinion is, of course, one which I am quite ready to abandon, if good reasons for doing so are shewn. But it will be necessary to examine the circumstances of a fair number of eclipses in as many undoubtedly genuine records as can be referred to.—J. F. F.]

[25] *Nirṇayasindhu*, Par I fol. 32b, l 11 सूर्यग्रहो यदा रात्रौ दिवा चन्द्रग्रहस्तथा । तत्र स्नानं न कुर्वीत दद्याद्दानं च न क्वचिदिति षट्त्रिंशन्मतात् ॥ The *Shaṭtriṁśat-Smṛiti* is one of those compilations, which, though called *Smṛitis*, belong to not very remote times.

[26] See the long discussion on this point, *Nirṇayasindhu*, Par. I. fol. 35a, l. 6—fol. 36b l. 11.

means conclusive. On the other hand, there are various reasons which speak against the assumption that they are forgeries. (1) The characters in which they are written are certainly ancient. (2) The statement that the first was written by Mâdhava, the son of Gilaka, and the second by Rêva, the son of Mâdhava, is of some importance. A Hindu forger would hardly think of such a collateral circumstance. And (3) their historical contents, taken by themselves, are perfectly believeable. There is no reason why we should deny the existence of a Gurjara kingdom during the fifth century A.D., and the interval of seventeen years, at which they are stated to have been issued, is not too long for the reign of one king. If Dr. Bhagvânlâl felt unable to reconcile their contents with those of Khê. I. and II. his difficulty was, I think, merely a self-created one. Though both sets of documents name three homonymous kings, two of which receive also the same *birudas*, it by no means follows that the same persons are meant.[27] The pedigree of the Gurjaras which Dr. Bhagvânlâl gave, *ante*, Vol, XIII. p. 73, according to the Khêḍâ and Nausâri grants, and which I too consider to be correct, shows that these kings during six generations contented themselves with the two names, Dadda and Jayabhaṭa. Dr. Bhagvânlâl also gave the correct explanation of this curious fact. He added that the Hindus very commonly name the grandson after the grandfather. I see no reason why we should deny that this practice had prevailed for a longer time, and that in the fifth and sixth centuries each Dadda was succeeded by a Jayabhata and each Jayabhaṭa by a Dadda, as regularly as during the seventh and eighth. Nor is the repetition of the same *birudas* anything unheard of or even extraordinary. There are other instances of the same kind. Thus among the Râshṭrakûṭas,[28] Gôvinda [III.] surnamed Jagattuṅga is succeeded by an Amôghavarsha and the latter by a Krishṇa [II.] called Akâlavarsha. Then follows another Jagattuṅga [II.] one of whose sons bears the name Amôghavarsha, and the son of the latter is again a Krishṇa with the *biruda* Akâlavarsha. Under these circumstances it seems impossible to suspect the information, conveyed by the Gurjara plates, that one Dadda-Praśântarâga, the son of a Jayabhaṭa-Vîtarâga, ruled in the fifth century, while the reign of another prince, who bears the same name and the same honorific title and likewise was the son of a Jayabhaṭa-Vîtarâga, fell in the seventh century. This view gains, I think, a great deal more probability by the find of the Bagumrâ inscription. For, instead of two, we have now three documents which fully agree in their historical contents, which all three show ancient characters and show as close a relationship to each other as may be expected from their belonging to the short period of seventeen years. The larger such a group of grants becomes, the less is it possible to deny their genuineness. For they mutually protect each other, since the contents of the one confirm those of the others. With every additional document, the hypothesis that we have to deal with the works of a forger, requires more and more complicated suppositions and hence becomes more difficult. I believe it to be unnecessary to point out these difficulties in detail; and I turn to the more important task of attempting a systematic arrangement of the historical information which the Gurjara grants yield, and of supplementing it by the statements of some other documents.

Assuming, as we now must do, the three grants, U. B. and I. to be genuine, we obtain from the seven sets of plates, the following pedigree of the Gurjara princes of Broach:—

Dadda I. [circiter 430 A.D.]
|
Jayabhaṭa I.-Vîtarâga I. [circiter 455 A.D.]
|
Dadda II.-Praśântarâga I. [Śaka-Saṁvat 400 415, 417, or 478-495 A.D.]
:
:
Dadda III. [circiter 580 A.D.]
|
Jayabhata II.-Vitarâga II. [circiter 605 A.D.]
|
Dadda IV.-Praśântarâga II. [Chêdi-Saṁvat 380, 385, or 628-29 to 633-34 A.D.
|
Jayabhaṭa III. [circiter 655 A.D]
|
Dadda V.-Bâhusahâya (circiter 680 A.D.]
|
Jayabhaṭa IV. [Chêdi-Saṁvat 456 to 486, or 706 to 734-35 A.D.]

[27] The full analysis of the historical contents of the plates, given below, will show that there are good reasons for not identifying them.

[28] *ante*, Vol. XI. p. 109.

In fixing the approximate dates of the kings of whose times we have no inscriptions, I go on the assumption that the duration of a generation is about twenty-five years. The gap between Dadda II. and Dadda III. was probably filled by the reigns of two Jayabhaṭas and of one Dadda between them. The period of about 80 years is just long enough for three reigns.

With a single exception all the complete inscriptions call the princes enumerated above, scions of **the Gurjara race**; and Khê. I. and II. highly extol the greatness and wide extent of this family. Na. alone names the Mahârâja Karṇa as their ancestor. With respect to this personage it is for the present impossible to say whether the famous hero of the Mahâbhârata may be meant, or some real historical king. But the name Gurjara makes it evident that this dynasty belonged to the great tribe which is still found in Northern and Western India and after which two provinces, one in the Bombay Presidency and one in the Pañjâb, have been named. The Gurjaras or Gujars are at present pretty numerous in the western Himâlaya, in the Pañjâb and in Eastern Râjputâna. In Kachh and Gujarât their number is much smaller. It would, therefore, seem that they came into Western India from the north. Their immigration must have taken place in early times, about the beginning of our era or shortly afterwards. In Western India they founded, besides the kingdom of Broach, another larger state which lay some hundred miles further north. Hiuen Tsiang mentions in his travels[29] the kingdom of *Kiu-che-lo* and its capital *Pi-lo-mi-lo*. It has been long known that the former word corresponds to Gurjara. But the name of the town has been incorrectly connected by the French scholars with Bâlmêr in the Jêsalmîr territory, and this identification has been accepted in Mr. Beal's new translation of the *Siyuki*. As I have stated already formerly[30] following Colonel J. Watson, *Pilomilo* corresponds exactly to Bhillamâla, one of the old names of the modern Bhînmâl or Śrîmâl[31] in southern Mârvâḍ close to the northern frontier of Gujarât. Another work, which was composed a few years before Hiuen Tsiang's visit to Gujarât, contains likewise a notice of this northern kingdom of the Gurjaras. The astronomer, Brahmagupta, who completed his Siddhânta in Śaka-Saṁvat 550 or 628 A.D., calls himself Bhillamâlakakâchârya,[32] 'the teacher residing in Bhillamâlaka,' and is called so by his commentator Prithûdakasvâmin. He further states that he wrote under king Vyâghramukha who was 'an ornament of the Châpa race.' This family, whose name recurs in the Haḍḍâla grant of Dharaṇîvarâha[33] prince of Vadhvâṇ, thus seems to have been the reigning house of Bhillamâla. It is most probably identical with the Châuḍâs, Châvôtakas[34] or Châpôtkaṭas, who from 756 to 941 A.D. held Aṇhilvâḍ and still possess various small districts in northern Gujarât. The Gurjara kingdom of Broach was without a doubt an offshoot of the larger State in the north, and it may be that its rulers, too, belonged to the Châpa family.

The capital of the southern Gurjara State seems to have been always Broach, which town has possessed since remote times a very great importance. U. B. and I. are dated from a *vikshêpa*, probably a cantonment, situated at the gates of Broach; while in Khê. I. and II. Nândîpurî is named as the place of issue. The latter name refers, as I have shown formerly,

[29] Beal, *Siyuki*, Vol II. p. 269f. Hiuen Tsiang assigns to the northern Gurjara State an extent about double of that given for the kingdom of Broach.

[30] *ante*, Vol. VI. p. 63.

[31] Bhillamâla means etymologically 'the field of the Bhil' and Srîmâla 'the field of Srî. The latter name must also be ancient as the Srîmâli Brâhmaṇs are called after it. The Jainas narrate various, of course incredible, legends, which explain how Srîmâla came to be called Bhillamâla. Merutunga says that king Bhôja invented the latter name, because the people of Śrîmâla let the poet Mâgha die of starvation. According to another authority the town had a different name in each Yuga. It is in India very common for ancient towns to have two or even more names. Thus Kanauj was called, Kanyakubja, Gadhipura, and Mahodaya.

[32] See Professor A. Weber, Die Sanskrit und Prakrit Handschriften der Berliner Bibliothek Vol. II. pp. 297, 299. In the first passage the MSS. offers incorrectly Bhilamâchârya; in the second which occurs in the commentary on the *Khaṇḍakhâdyaka*, we have Bhillamâlavakâchârya, a slightly corrupt reading. This latter varia lectio occurs also in other MSS., see Weber, Indische Streifen, Vol. III. p. 90, and has given rise to erroneous suppositions regarding Brahmagupta's home. The Gujarâti Jôshis still preserve the tradition that Brahmagupta was a native of Bhînmâl.

[33] *ante*, Vol. XII. p. 190ff. The remark which I have made there that the Châpas are not named elsewhere of course requires correction.

[34] The form Châvôtaka, which occurs in Dr. Bhagvânlâl's grant of the Gujarât Chalukya king Pulakêśin of Saṁvat 490 is the immediate predecessor of the word Châuḍâ. Its Sanskrit original is certainly not Châpôtkaṭa which probably has been coined in comparatively speaking modern times, in order to explain the difficult Prâkrit word, just as the bards of Râjputâna have invented Râshṭrauḍha as etymon for Râṭhoḍ.

to an ancient fort which once rose east of Broach close to the Jhad svar gate.[35] Na. and Kâ. give no definite information on this point, as the former grant was issued during a royal progress at Kâyàvatâra,[36] probably a *tîrtha*, and as the first half of the latter is missing.

The Broach kingdom included, according to the testimony of the inscriptions, the whole of central Gujarât and the northern part of southern Gujarât, *i.e.* the present Broach District, the Tâlukâs of Ôlpâd, Chôrâsî and Bàrdôlî of the Surat District, as well as the adjoining parts of the Barôdà State, of the Rêvàkâṇthâ and of Sachîn. Its northern frontier was probably the river Mahî; and the southern one the river Ambikâ. For, U. B. and I. grant villages in the Tâlukâ of Aṅklêshvar and in the Gaikwâḍî districts south of the Taptî.[37] Khê. I. and II. both refer to the distribution of the village of Śirîshapadraka, the modern Sîsôdrâ, in Aṅklêshvar. The villages named in Na, Śamîpadraka, Gôlikâ and Dhâhaddha, were situated in the *pathaka* or Tâlukâ of Kôrillà. The latter place has been correctly identified by Dr. Bhagvânlâl with Kôral on the northern bank of the Narmadâ, in 21° 50′ N. Lat. and 73° 15′ E. Long. Kôral was still in the beginning of this century the chief town of a Gaikwâḍî Parganâ (Forbes, *Râs Mâlâ*, p. 390, 2nd edition). The village of Śamîpadraka, to the territory of which the granted field belonged, is probably Samrâ, north of Kôral (Trig. Surv. Guj. Ser. No. 31). I identify Dhâhadda with the Dhâwat of the map (Trig. Surv. Map. Guj. Ser. No. 30) north-west of Samrâ, because the road from Samîpadraka to Dhâhaddha formed the western boundary of the field.[38] The home of the donee, the *agrâhâra* of Śrâddhika, is certainly the village of Sâdhli, situated according to the map north of Samrâ. I cannot find any trace of Gôlikâ. The villages mentioned in Kâ. are found, as I have shown in my paper, *ante*, Vol. V. p. 112, in the north-western corner of the Jambûsar Tâlukâ, south of the Mahî. The names of the political divisions of the Broach kingdom occurring in the inscriptions, are the *vishaya* or province of Bharukachchha (Kâ.), which seems to have included the whole northern half of the Broach District, *i.e.* the Tâlukâs of Jambûsar, Âmôd, Wâghrà, and Broach, and possibly the adjoining Gaikwâḍî Parganâs. It is not improbable that it was divided into a number of *âhâras* and *pathakas*; and that the *pathaka* of Kôrillâ (Na.) belonged to it. Further south we have the *vishaya* or province of Akrûrêśvara (Khê. I. II.) or Akulêśvara (I.) which comprised the large Tâlukâ of Aṅklêshvar and possibly pieces of the Rêvàkâṇthâ. Its southern boundary was no doubt, as at present, the Kîm river. For we shall see further on[39] that the Ôlpâḍ Tâluka and the Gaikwâḍî districts north of the Taptî formed the Kâśakûla *vishaya*. Immediately south of the Taptî lay the Kamaṇîya *bhukti*, which included 116 villages, (U.) or the Kârmaṇêyâhâra (Chalukya inscr.)

[35] *ante*, Vol. VII. p. 62. Dr Bhagvânlâl's conjecture, *ante*, Vol. XIII. p. 73, according to which Nândîpurî has to be identified with Nândod, is not tenable. The word Nândôd has nothing to do with Nândîpuri, but is derived from Nandapadra. The town Nândôd is of modern origin and has no claim to any great antiquity. An examination of its temples which I made in 1875, showed this; and the Brâhmaṇs acknowledged it.

[36] Dr. Bhagvânlâl, *loc. cit.*, thought that Kâyàvatâra is the modern Kâvi. Against this identification speaks the fact that according to the phonetic laws of the Prâkrit dialects Kâyâvatâra cannot become Kâvî, as well as the circumstance that according to the Rathôr inscription of Saka-Samvat 749 the old name of Kâvî was Kapikâ, which latter word is just the Sanskrit prototype we should expect. Kayâvatâra, literally "the incarnation of a son or descendant of Ka or Prajâpati," probably was a place of pilgrimage on the Narmadâ.

[37] See above, p. 212. With reference to the villages named in I., I have to offer the following remarks :—The village granted, Râva, is the modern Râyamâl in the Tâlukâ of Anklêshvar, in 21° 32′ N. Lat and 73° 52′ E. Long., as the resemblance of the names and a comparison of the boundaries according to the inscription and the Trig. Surv. Map, Guj. Ser. No. 13 show. The boundaries are

according to the inscription.	according to the map.
east Vâranera	east Vâlnêr.
south the river Varaṇḍâ.	south the Wâṇḍ Khârî.
west Śunthavaḍaka.	west Sâyan.
north Aralua.	north Alva.

The modern name Râyâmâl is derived from Râivakamâla, 'the field of Râivaka, *i. e.* Sanskrit Râjîvaka,' or perhaps the lotus (*râjîva*) field.' The ancient name Râiva is an abbreviation of Râivamâla, made *bhîmavat*. The name Sâyan does not correspond to Sunthavadaka and the modern village Sâyan is probably a new settlement. The identifications of Vâranêra and of the river Varaṇḍâ have already been correctly given by Dr. Bhâṇḍârkar in the prefatory remarks to his edition of I. He misread the names Râiva and Aralua which Mr. Fleet first deciphered correctly. Mr. Fleet considered Raiva to be a less probable reading than Raidham But the modern name Râyâmâl and its probable derivation from Sanskrit *râjîva* show that the former is the correct one.

[38] Dr. Bhagvânlâl was inclined to identify Dhâhaddha with the modern Dohad in the extreme north-east of the Pañch Mahâls. This conjecture is exceedingly improbable, first because the distance of Dôhad from Kôral is too large, secondly because the ancient name of Dôhad or more correctly Dehvad, is according to the Chaulukya inscription of Vikrama-Samvat 1196 and 1202, *ante*, Vol. X. p. 159, Dhadhipadraka. [39] See below, p. 197.

and further south-east the *âhâra* of Tatha-Umbarâ (B.) or Bagumrâ.

The extent of the kingdom was, therefore, in its best times not very large;[40] and it was reduced very considerably, as will be shown further on, in the seventh century. With this assumption agrees the fact that its princes were feudatories of some larger power. In Khê. I. and II., Dadda III. is called a *Sâmanta* 'or feudal baron' and the same title is found on the seal where it apparently refers to Dadda IV.-Praśântarâga II., the donor of the grant. The position of Jayabhaṭa IV. seems at first sight to be a little higher, as he calls himself in Kâ. *Sâmantâdhipati*, 'the lord of great barons.' But he has also the title *samadhigatapañchamahâśabda*, 'he who has obtained the five *mahâśabdas*,' and the latter indicates that he was only a feudatory. The same epithet is also given in U., Ba. and I. to the *Mahârâjâdhirâja* Dadda II.-Praśântarâga I., whence it may be inferred that he, too, in spite of his high sounding title obeyed or had obeyed some time or another, a paramount sovereign. The most probable explanation of the apparent contradiction between his two designations is, I think, that he had among his vassals one or several who bore the title *Mahârâja*, which, as *e.g.* the earlier Valabhî inscriptions[41] show, was sometimes bestowed by paramount sovereigns on distinguished chiefs. In favour of this supposition speaks the fact that Jayabhaṭa IV., too, ruled over *Râjas*, as he addresses his commands in Na. l. 17 to *Râjas*, *Sâmantas* and so forth. It is, of course, not absolutely impossible that Dadda II.-Praśântarâga I. was at first a vassal and later gained independence, but nevertheless continued to use the epithet which he might have dropped. If that were so, it would be necessary to assume that the Gurjaras rose for some time to greater power. The period cannot have been a long one, because Dadda III. was again a *Sâmanta*. The question to whom the rulers of Broach owed allegiance, cannot as yet be answered with full confidence. It is not unlikely that at first they were vassals of the Gurjaras of Bhillamâla. Later their over-lords probably changed from time to time, as many kings of Central and Southern India tried to get a hold of the much-coveted garden of the West, and some among them succeeded, each for a shorter or longer period.

If we now turn to **a consideration of the historical facts** from the reigns of the several kings mentioned in the inscriptions, we must confess that we learn nothing of **Dadda I.** except the name.

Of the second prince, **Jayabhaṭa I.-Vîtarâga I.**, it is said[42] "that he displayed in the highest degree all the sportive qualities of the elephants of the quarters by expeditions in the forests growing on both shores of the ocean." As I have pointed out formerly,[43] the expeditions in the forests on both sides of the sea refer in all probability to wars in Gujarât and in Kâṭhiâvâḍ. For, when a Gujarâtî speaks of the sea, he naturally thinks of the Gulf of Cambay. It seems therefore, that the relations between the chiefs of continental and peninsular Gujarât were as strained in the fifth century A.D., as we shall find them to be in the sixth and the seventh, Jayabhata's epithet Vîtarâga, literally 'he whose passions have disappeared,' further indicates that he was an adherent of one of the philosophical systems whose aim is the suppression of the human passions and the attainment of final liberation. He may have been a Vêdântist or a follower of the Sâṁkhya or even of the Śaiva or Bhâgavata *darśana*. It is worthy of note that his *biruda* has hitherto not been found in the case of any king of another dynasty.

The surname of his son and successor, **Praśântarâga**, 'he whose passions have been extinguished,' permits us to make the same inference which may be drawn from the epithet Vîtarâga. **Dadda II.**, no doubt, likewise inclined to the teachings of the ascetics. In his case this conclusion is confirmed by two other statements of the inscriptions. It is said of

[40] Sir A. Cunningham assumes, *Ancient Geography*, p. 327, that the kingdom of Bharukachchha was somewhat more extensive, and he chiefly relies on Hiuen Tsiang's statement, *Siyuki*, Vol. II. p. 239 (Beal), according to which *Po-lu-kie-ch'e-p'o* was 2400-2500 *li* or about 400 miles in circuit. But this estimate is very vague, as the form of the figure is not stated. The description of the country in the *Siyuki* seems to be inaccurate. It would fit only the sterile districts on the sea coast, the so-called Bâl, not the rich and fertile soil of the Kânem. The name *Po-lu-kie-ch'e-p'o* corresponds, I think, to Bharukachchhapura, not to Bharukachchêva, as the usual transliteration is.

[41] *ante*, Vol. IV. p. 107.

[42] See below the text l 8.

[43] *ante*, Vol. V. p. 111.

him, that "he illumined the world of the living by his pure precepts" and that "he possessed the supreme knowledge."[44] The second phrase leaves no doubt that he had studied one of the philosophical systems, supposed to lead to *mõksha*. The assertion that he illumined the world by his pure precepts, may mean that he himself had composed a philosophical work or had caused one to be written in his name. It may, however, also refer to his zeal for the spread of his doctrines and indicate that he established *maths* and made the ascetics preach his and their faith among his people. In addition we learn from the inscriptions that he occupied the throne between the years 478-495 A.D. and that he assumed the title *Mahârâjâdhirâja*, the probable meaning of which has been discussed above.

Dadda III., the first king named in Khê. I. and II., seems to have been a great warrior. The inscriptions say (ll. 3-4), that he conquered the hostile family of the Nâgas, and (ll. 9-10) that "the lands lying at the foot of the Vindhya hills gave him joy as if they were his wives carrying beauty on their high bosoms." Dr. Bhagvânlâl has called attention to the fact that the first passage contains an allusion to a historical event, and he has also stated that it is difficult to decide which Nâgas are meant. Nâgavaṁśas ruled in Northern and in Central India, in Râjputâna and even in the South. In the absence of any specification the choice is difficult, and we must wait for further documents before we can come to a decision. As regards the interpretation of the second passage, which hitherto has not been noticed, it indicates without a doubt that Dadda III. made conquests out of Gujarât. The Vindhya hills do not extend to the latter province, but end in the neighbouring Mâlva, and it is probably a piece of the latter country which Dadda III. added for a time to the dominions of the Gurjaras. Whenever the rulers of Mâlva were weak and those of Gujarât felt strong, an attack from the Gujarât side was the invariable consequence, and it sometimes was successful and led to temporary conquests. The position of Dadda III., *viz.* his being only a *Sâmanta*, has been mentioned above.

The description of the next king, **Jayabhaṭa II.-Vîtarâga II.** yields no historical information. His *biruda* probably indicates that his religious inclinations were of the same kind as those of Jayabhaṭa I.

A great deal more is known about **Dadda IV.-Praśântarâga II.** The inscriptions Khê. I. and II. shew that he occupied the throne during the years 628-633 A.D., which, as the dates of Kâ. and Na. show, fell in the commencement of his reign, and that he was an adherent of the Sauras or worshippers of the Sun. Na. adds that he gained great fame by protecting the ruler of Valabhî against the supreme lord Śrîharshadêva. The latter is, of course, Śrîharsha-Harshavardhana of Thâṇêsar and Kanauj, who ruled over the whole of Northern and Central India during the greater part of the first half of the seventh century 606-648 A.D. At first sight it seems difficult to understand how the king of Valabhî whose capital lay west of Broach, could be attacked by a Central-Indian power before Broach had been subdued, and it seems still less intelligible how the ruler of a very small state, a mere *Sâmanta*, could afford protection against the armies of one of the most powerful kings of India. The first difficulty is, however solved by the Valabhî inscriptions. For a grant of Dharasêna II., dated Saṁvat 270[45] or 588-89 A.D., grants a village in the Khêṭakâhâra, the district of Khêḍâ, and thus proves that Gujarât, north of the Mahî, had been annexed to Valabhî before the end of the sixth century. Hence the princes of Valabhî were in the seventh century the immediate neighbours of Mâlva, which latter country was according to the *Śrîharshacharita*[46] a dependency of the great central empire. Śrîharsha was, therefore, able to send an army against Valabhî without touching the Broach territory. The ancient road from Central India and Mâlva to Khêḍâ leads through the pass of Dôhad (Dadhipadra). The second point, too, finds its elucidation partly through the Valabhî inscriptions and partly through some remarks in the writings of Hiuen Tsiang. As Khê. I. and II. say nothing about the deed which reflected according to Na. great glory on Dadda IV., it appears that it was performed after 633-4 A.D. Between these

[44] See below the text l. 11. [45] *ante*, Vol. VII. p. 70 ff.

[46] *Śrîharshacharita*, p. 183, Kashmir edition.

years and the end of Śrîharsha's reign, two princes ruled in Valabhi, Dhruvasêna II., who issued a grant in [Gupta-Valabhi]-Samvat 310 or 628-9 A.D. and his son, the *paramabhaṭṭârakamahârâjâdhirâjaparamêśvarachakravartin* Dharasena IV., who, as his titles show, was the most powerful king of the dynasty. It is thus evident that Srîharsha must have attacked one of these two princes. The remarks of Hiuen Tsiang leave no doubt that it was Dhruvasêna II., who had to fly before the armies of the great king of Kanauj. He says, *Siyuki*, II. p 267 (Beal), in his account of Valabhî,—"the present king is of the Kshatriya caste, as they all are. He is the nephew of Śilâdityarâja of Mâlava, and son-in-law of the son of Śilâditya *i.e.* Śrîharsha the present king of Kanyâkubja. His name is Dhruvabhaṭa[17] (*T'u-lu-h'o-po-tu*). He is of a lively and hasty disposition, his wisdom and state-craft are shallow. Quite recently he has attached himself sincerely to faith in the three precious ones."

Again in the account[18] of the great religious meeting, which Srîharsha convened in 643 A. D. at Prayâga, *To-lu-po-pa-toh'a*, 'the king of Southern India,' is enumerated as one of the princes attending at Srîharsha's command. Finally the same work[19] informs us that *Pa-tch'a* together with Kumâra and other kings accompanied Hiuen Tsiang on his departure from Srîharsha's camp.

Hiuen Tsiang's notes leave no doubt that Dhruvasena II. occupied the throne of Valabhî at the time of his visit, and that he was connected with Srîharsha by marriage and was his vassal. Taken together with these facts, the statement of Na. that Dadda IV (Praśantarâga II.) protected the king of Valabhî who had been defeated by the supreme lord Śrîharshadêva, becomes both intelligible and perfectly credible. It is now easy to see that Śrîharsha extended,—some time between A.D. 633-34, the date of Khê. II., and 640, the approximate date of Hiuen Tsiang's visit to Gujarat,—his sway to Western India. He directed his attack, as a matter of course, against Valabhî, the largest and most powerful state in Gujarât, and defeated its ruler Dhruvasêna II. Dhruvasêna fled after his defeat to Broach and was sheltered by Dadda IV. From his place of refuge he made his peace with and his submission to his great foe, and was restored to his throne as a feudatory of the latter. The peace was cemented, as has happened in many similar cases, by a marriage of Dhruvasêna with Srîharsha's granddaughter. With this supposition the magnitude of Dadda's feat is somewhat reduced, but it loses the appearance of absurdity which it has at first sight. Hiuen Tsiang's statement that Dhruvasêna had quite recently attached himself to Buddhism, probably indicates that the subjugation and marriage of the king of Valabhî had occurred only a short time before his visit. Dhruvasêna's conversion to or inclination towards Buddhism has probably to be attributed to the influence of his connection with Srîharsha, who, as is well-known, was possibly himself a Buddhist, or at least, a great patron of that sect.

A consideration of other Valabhî inscriptions and of the grants of the Gujarât Chalukyas, teaches us that the reign of Dadda IV. was filled by more events than the Gurjara grants mention. These events were all untoward ones and led to a temporary annihilation and to a permanent weakening of the Garjara kingdom. The friendly relations with the rulers of Valabhi do not seem to have lasted long. For we possess two grants of Dharasêna IV., the son and successor of Dhruvasêna II., which were both issued in the autumn of the year 648 A.D., from "the victorious camp situated at Broach." This date leaves no doubt that Dharasena had made war on the king of Broach and had occupied his capital. The silence of Na. on this point proves nothing, as Indian inscriptions very rarely confess to a defeat of the princes by whose orders they were made. As the dates of Khe. I. and II. fall in the beginning of the reign of Dadda IV., it is very probable that he in person received this

[17] The transcription is mine. Mr. Beal gives erroneously Dhruvapaṭu. The Chinese translation Tchang-tcu (St. Julien, *Mémoires* II., p. 163) as I have shown ante Vol. VII. p. 80 goes back to Dhruvabhaṭṭa a common misspelling for Dhruvabhaṭa. The title 'king of Southern India,' which is here given to Dhruvabhaṭa may be explained by the circumstance that Srîharsha did not reign over the Dekhan, and that Valabhî was one of the southernmost states subject to his control.

[18] St. Julien, *Vie de Hiouen Thsang*, p. 254. The identity of the two Chinese forms *T'u-lu-h'o-po-tu* and *To-lu-po-pa-tch'a* is incontestable, because *tch'a* often represents the lingual *ṭa*, as has been recognised by M. St. Julien.

[19] *Vie*, p. 260. The form *Pa-tch'a*, which appears also on p. 254 is the representative of Bhaṭa, an abbreviation of Dhruvabhaṭa, made *bhûm*-*tot*.

extraordinary return for his kindness to Dhruvasêna II. The occupation of Broach by the ruler of Valabhî, however, cannot have lasted long; for Kà. and Na. prove the continuance of the Gurjara dynasty and their holding the province of Broach. Moreover a great political catastrophe seems to have happened in Valabhî soon after 648 A.D. The grants of this year are the last which, as far as we know at present, Dharasêna IV. issued. In Saṁvat 332 or 650-51 A.D., Dhruvasêna III., his youngest cousin twice removed, occupied his place.[50] Dharasêna IV. must, therefore, have died shortly after the issue of the two grants dated from Broach. As the youngest member of another branch of his family succeeded him, it is probable that he lost his life in consequence of an internal revolution. Such an event would, of course, present a favourable opportunity for the Gurjaras to regain their lost possessions.

About the same time as the conquest of Broach by Dharasêna IV., or perhaps a little earlier, happened the second misfortune which the Gurjaras had to suffer. This was the loss of the southern half of their dominions to the Chalukyas. We know at present of five Chalukya grants, belonging to the second, third and fourth quarters of the sixth century and to the second quarter of the seventh century, which show that during this long period the districts immediately north and south of the Taptî, the British Tâlukâ of Olpâd and the Gaikwâḍi district of Kamrêj and Nausâri, belonged to branches of the great Chalukya dynasty of Bâdâmi. These documents are (1) the Khêḍâ grant of Vijayarâja or Vijayavarman, dated Saṁvat 394,[51] (2) the Nausâri grants of the *Yuvarâja* Sîlâditya-Sryâśraya, dated Saṁvat 421,[52] (3) the Surat grant of the same prince, dated Saṁvat 443, (4) the Balsâr grant of Maṅgalarâja, dated Saka-Saṁvat 663, (5) the Nausâri grant of Pulakêśivallabha-Janâśraya, dated Saṁvat 490.[53] After what has been said by Dr. Bhagvânlâl and General Sir A. Cunningham, it may be considered certain that all these inscriptions, excepting the fourth, are dated according to the Chêdi era, and that their dates correspond to the years 642-3, 669-70, 691-92, 731, and 738-39 A.D. As regards the family of the donors, Vijayarâja calls himself a Chalukya, and names a Jayasiṁha as his grandfather. His connection with the main line of Bâdâmi is not stated. But the date of his grant makes it probable that his grandfather was the Jayasiṁha-Dharâśraya who is named in the Nirpaṇ grant,[54] and who was a younger brother of Pulakêśin II. of Bâdâmi. The donors of the other four grants are brothers and sons of a younger son of Pulakêśin II. of Bâdâmi, who was also called Jayasiṁha-Dharâśraya (see the Pedigree of the Chalukyas of Bâdâmi and Gujarât, on page 199). This Jayasiṁha received, as the grants hint, the province of Gujarât from his brother Vikramâditya I. of Bâdâmi, and handed over the administration to his son and heir-apparent Śilâditya-Śryâśraya, who, it would seem, died before his father. Afterwards the succession to the Chalukya possessions in Gujarât devolved on Jayasiṁha's second son Maṅgala or Maṅgalarasarâja, surnamed Vinayâditya-Yuddhamalla, and later on Pulakêśivallabha-Janâśraya. All these kings remained feudatories of the kings of Bâdâmi in the Dekhan.

The village given away in the Khêḍâ grant of Vijayarâja is Pariyaya, which lay east of the village of Sandhiyara and belonged to the province of Kâśakûla. Pariyaya is the modern Pariyâ in the south-eastern corner of the Tâlukâ of Olpâd; and Sandhiyara is now called Sandhier which lies a few miles further west on the local-fund road from Sâyan to Olpad.[55] The fact that the district on the northern bank of the Taptî was called Kâśakûla is also established by Dr Bhagvânlâl's Râṭhôr grant from Antrôli-Chhârôli, which village is called in the inscription Sthâvarapallikâ and is stated to belong to the province of Kaśakûla.[56] The Nausâri grant of Śryâśraya-

[50] A grant of Dhruvasêna III bearing the date given, was in the possession of Dr Bhagvânlal Indrâji, to whom I owe the knowledge of its existence

[51] The only reliable edition of this grant is Mr Fleet's, see *ante*, Vol VII p. 248 ff

[52] *Jour Bo Br. R As Soc.* Vol XVI p. 1 ff.

[53] Grants Nos 3 and 5 have been published by Dr Bhagvânlâl Indraji in the Verhandlungen des Siebenten Int Orientalisten Congresses in Wien, Arische Section, p 210 ff The fourth grant has been described by the same scholar, *ante*, Vol. XIV p 75 and in the *Journal Bo. Br R. A. S* loc. cit

[54] See *ante*, Vol. IX p. 123ff.

[55] See Trig Survey Map, Guj Ser No. 14.

[56] See *Jour Bo. Br. R As. Soc* Vol. XVI p. 105 The identification of Chhârôli with Sthavarapallikâ has been made by Dr Bhagvanlâl. He omitted to mention that the village of Khaireda is represented by the modern Kharwa and the town of Kâshṭhapurî by Kâṭhor. All these places are to be found in the sheet of the Trig S. Map. No 14 in 21°, 11-20 N. Lat. and 72°, 55-73° E. Long.

Sîlâditya was issued at Navasârikâ or Nausâri itself and disposes of the village of Asattigrâma, probably the modern Astgâm,[57] south-east of Nausâri. Still more important is the geographical information of the Surat grant of Samvat 443 or 691-92 A.D. It was written in the vice-regal camp at Kârmanêya or Kamrêj, and alienates a field of the village of Ôsumbhalâ, west of Allûraka. Ôsumbhalâ, is the modern Umbhêl[58] south of Kamrêj: and Allûraka is still called Alurâ. It is thus evident that the Chalukyas had conquered the northern bank of the Taptî as early as 642-3 A.D. That indicates, just as Sîlâditya's grants prove it clearly that the districts south of the Taptî were likewise lost to the Gurjaras. The date of Vijayarâja's inscription shows that this loss happened probably a little earlier than Dharasêna's invasion, and the long continuance of the Chalukya rule in southern Gujarât proves that it was permanent.

If we now turn to the history of the remaining Gurjara princes, we learn about **Jayabhaṭa III.** nothing beyond the name.

His son, **Dadda V.**, is called in Na. **Bâhusahâya**, 'he whose only helper was his arm,' and a *paramamâhêśrara, i.e.* 'a most devout worshipper of Śiva.' His *biruda* indicates that he was a warlike prince and confirms the further statement that he bravely encountered in battle the lords of the East and of the West. The latter foe probably was the ruler of Valabhî; and the lord of the East may have been the Chalukya sovereign of Bâdâmi. We can easily understand that both tried to annex the remainder of the Gurjara kingdom. Another assertion in the inscription, that Dadda V. studied the teachings (*pravachana*) of the great sage Manu, need not be taken too literally. But it is of interest, as it proves the popularity of the famous lawbook during the seventh century.

The last king of the Gurjara dynasty, known to us, Jayabhaṭa IV. ruled according to Na. and Kâ. between 706 and 734-35. The former inscription teaches us only that he was a *paramamâheśvara*, like his father. The second asserts that he quieted the impetuosity of the lord of Valabhî. The feud between Broach and Kâṭhiâvâḍ thus appears to have continued. Jayabhaṭa's opponent was either Sîlâditya V. or Sîlâditya VI. The grant of the first is dated (Gupta-Valabhî) Samvat 404 or 722-23 A.D., that of the latter was issued towards the end of his reign, in Samvat 441 or 759-60 A.D. In Jayabhaṭa's reign fell also, it would seem, the great invasion of the Tâjikas or Arabs, during which, as the grant of the Gujarât Chalukya Pulakêśin states,[59] the enemy conquered, besides Sindh and Kachh, Kâṭhiâvâḍ and the whole of Gujarât as far as Nausâri. The Gurjara king is especially mentioned as one of the subjugated princes.

Regarding the further fate of the kingdom of Broach, we can surmise now with more confidence than formerly that it continued to exist until the complete conquest of Southern and Central Gujarât by the Râṭhôr Gôvinda III. about the year 800 A.D. The Râdhanpur grant[60] of the latter says that "on Gôvinda's approach the Gurjara fled in fear into some (unknown hiding-place) and did not even dream of meeting him in battle." The Barôdâ[61] and Kâvi grants[62] add that Gôvinda III. presented the province of Lâṭa, the country between the Mahî and the Taptî, to his brother Indra, whose descendants continued to hold it, as other inscriptions prove, against many foes for more than a hundred years. During Indra's reign the Gurjaras stirred once more and he gained, as verse 29 of the Kâvi plates says, victories over them. I was formerly (*ante*, Vol. V. p. 145) inclined to identify these Gurjaras with the Châuḍâs of Aṇhilvâḍ. It seems now more likely that the dispossessed rulers of Broach are meant, though it is possible that they may have been assisted by their northern clansmen. The latter appear later without doubt as the foes of the Râṭhôrs. If the Bagumrâ inscription[63] of Dhruva III. asserts that this prince had to encounter the powerful Gurjaras, nobody but the king of Aṇhilvâḍ can be meant.

[57] Trig. Surv. Map, Guj. Ser. No. 35, 20° 53′ North Lat. and 73° 5′ East long.

[58] Trig. Surv. Map, Guj. Ser. No. 34, 21° 11′ North lat. and 73° 1′ East long.

[59] Verhandlungen des Siebenten Orientalisten Congresses, Arische Section, pp. 223-224, 236.

[60] *ante*, Vol. VI. p. 70.

[61] *ante*, Vol. XII. p. 156, see especially verse 30, p. 163.

[62] *ante*, Vol. V. p. 144, see especially verse 29, p. 150.

[63] *ante*, Vol. XII. p. 181.

PEDIGREE OF THE CHALUKYAS OF BADAMI AND GUJARAT.

(Compiled from Mr. Fleet's *Dynasties of the Kanarese Districts* and Dr. Bhagvânlâl Indrâji's grants.)

A.—Bâdâmi or main line.

- Jayasiṁha I.
  - Raṇarâga.
    - Pulikêśin I.
      - Kîrttivarman I. (567 A.D.)
        - Pulikêśin II. (610-634).
          - Âdityavarman.
          - Chandrâditya.
          - Vikramâditya I. (670-680-1 A.D.)
            - Vinayâditya. (681-696 A.D.)
          - **C.—Second Gujarât branch.** Jayasiṁha-Dharâśraya.
            - Śilâditya-Śryâśraya. (*Yuvarâja*) (669-692 A.D.)
            - Maṅgala, or, Maṅgalarâja. Vinayâditya-Yuddhamalla. (731 A.D.)
            - Pulakêśivallabha-Janâśraya. (738-39 A.D.)
        - Vishṇuvardhana I. (founder of the Eastern branch).
        - **B.—First Gujarât branch.** Jayasiṁha-Dharâśraya.
          - Nâgavardhana.
          - Buddhavarman.
            - Vijayarâja. (642-3 A.D.)
      - Maṅgalîśa (567-610 A.D.)
        - ? Satyâśraya-Indravarman (610 A.D.)

TEXT.

First Plate.

1 ओं स्वस्ति विजयविक्षेपात् भरुकच्छप्रद्वारवासकात् सकलघनपटलविनिर्ग्गतरजनिकरकरावबोधित-
2 [कु]मुदधवलयशप्रतापस्थगितनभोमण्डलोनेकसमरसंकटप्रमुखगतनिहतशत्रुसामंतकुलावधुप्र-
3 भातशमयरुदितफलोद्गीयमानविमलनिस्त्रिंशप्रतापो देवद्विजातिगुरुचरणकमलप्रणमोद्घृष्ट-
4 वज्रामणिकोटिरुचिरदिधितिविराजितमकुटोद्भासितशिराः दिनानाथातुराभ्यगतार्थिजनक्लिष्टप-
5 रिपूरितविभवमनोरथापचीयमानत्रिविष्टपैकसहयधर्म्मसच्चयः प्रणयपरिकुपितमानिनीजन-
6 प्रणामपुर्व्वमधुरावचनोपपादितप्रसादप्रकाशिकृतविदग्धनागरकस्वभावो विमलगुणपंजरक्षि-
7 प्तबहलकलितिमिरनिचय श्रीमद्दस्तस्य सुनु समदप्रतिद्वंद्विगजघटाभेदिनिस्त्रिंशविक्रमप्रक-
8 टितमृगपतिकिसोरवियवलेपः पयोनिधिकृत उभयतटप्ररुढधनलेखविहतनिरंकुशशानप्रवा-

L. 1, read ओं; व in °वासकात् looks like न; read र-जनी°.—L. 2. कु° in कुमुद° is indistinct; read प्रमुखा-गत°; कुलवधू.—L. 3, read °समय°; प्रणामो°.—L. 4, read वज्र°; °दीधिति°; °मुकुटो; °रा दीना°; °भ्यागता°; °क्लिष्ट°

L. 5, read °रथोप°; °त्रिवि°; °सहाय°; °संचयः;—L. 6 read °पूर्व्व°; मधुर°; °प्रकाशीकृत°.—L. 7, read °निचयः;—°द्द°; सून..—L. 8, read °किशोरवीर्या°; °निधीकृतो°; °प्ररूढ°; °वनलेखा°.—

9 हप्रवृतदिग्दन्तिविभ्रमगुणसमूहः स्फटिककर्पुरपिण्डपण्डुरयशश्चन्दनचर्चिताङ्गःसमुन्नतगग-
10 नलक्ष्मिपयोधरोसंगः श्रीजयभट्टस्तस्यत्मज प्रतिहतसकलजगद्व्यापिदोषाधिकारविजृंभितसंत-
11 तानमोवृत्विरधिकगुरुस्नेहसंपल्कविमलदिशोद्भसितजिवलोकः परमबोधसमानुगतो विपुलगु-
12 र्ज्जरनृपन्मयप्रदिपतोमुपगतः समधिगतपंचमहाशब्दमहाराजाधिराजश्रीमद्दः कुशली स[र्व्वा-
13 ने]व राष्ट्रपतिविषयपतिग्रामकूटायुक्तकानियुक्तकाधिकमहत्तरादींत्समाज्ञापयति अस्तु वो विदि-
14 तं यथा मया मातापित्रोरात्मनश्चैवामुष्मिकपुण्ययशोभिवृद्धये कन्यकुब्ज-
15 वास्तव्यतचातुर्विद्यसामान्यकौसिकस्यगोत्रच्छन्दोगसब्रह्मचारि-
16 भट्टमहिधरस्तस्य सूनु भट्टगोविन्द बलिचरुवैश्वदेवाग्निहोत्रपञ्चमहायज्ञादिक्रि-

Second Plate.

17 योत्सर्पणर्थं तथउम्बराहाराद्वलिश अन्तःपातितथउम्बराग्रामोस्याघटनस्थनानि
18 पुर्वत उविलथगग्रम दक्षिणत इषिग्राम पश्चिमतः संकियग्रम उतरत जरवद्रग्रम
19 एवमयं स्वचतुराघटनविशुद्धो ग्रामः सोद्रंग[:] सपरिकर सधान्यहिरन्यादेय[:]
20 सोत्पद्यमानविष्टिक[:] समस्तराजकियनमप्रवेश्यमचन्द्रर्कर्ण्णवक्षितिसरित्पर्वतसमानकालीन[:] पु-
21 त्रपौत्रान्वयक्रमोपभोग्य[:] पुर्वप्रत्तदेवब्रह्मदायवर्ज्जनभ्यन्तरसिद्धया शकनृपकालातीतसंव[त्स]
22 रशतचतुष्टये पंचदशाधिके ये[ष्ठ]मावास्यमुर्यग्रहे उदकातिसर्गेण प्रतिपादितं यतोस्योचित-
23 य ब्रह्मदायस्थित्या कृषत कर्ष[य]तो भुंजतो भोजयत प्रतिदिशतो वा न व्यासेधः प्रवर्तितव्य[:] तथागा-
24 मिभिरपि नृपतिभिरस्मद्वंश्यरन्यैर्व[ा]सामान्यभूमिदानफलमवेत्य बिन्दुलोलान्यनित्य[ा]न्यैश्वयणि तृ-
25 णाग्रलग्नजलबिन्दुचञ्चलञ्च जीवितमाकलय्य स्वदायनिर्विशेषोयमस्मद्दायोनुमन्तव्यः पालयि-
26 तव्यश्च तथा चोक्तं बहुभिर्वसुधा भुक्ता राजभिः सगरादिभिः [।] यस्य यस्य यदा भूमिस्तस्य तस्य तदा फ-
27 लं [॥] यश्चाज्ञनतिमिरावृतमतिराच्छिद्याद्याच्छिद्यमानमनुमोदेता वा स पञ्चभिर्म्महापातकैरुपपातकैश्च
28 संयुक्त स्यादिति [।] उक्तं च भगवता वेदव्याशेन व्याशेन [।] षष्टिं वर्षसहस्राणि स्वर्गे तिष्ठति भूमिदः [।] आ-
29 च्छेत्ता चानुमन्ता च तान्येव नरके वसेत् [॥] यानीह दत्तानि पुराननानि दानानि धर्म्मार्थायसस्करा-
30 णि [।] निर्भुक्तमाल्यप्रतिमानि तानि को नाम साधुः पुनरादर्दीत [॥] स्वदत्तां परदत्तां वा यत्नद्रक्ष न-
31 राधिपः [।] मही महीमतां श्रेष्ठ दानाच्छ्रेयानुपालनं [॥] लिखितंश्चैतत्पादानुजीविदामोदरसुते-
32 न रेवादितेन स्वहस्तोयं मम श्रीवितरागतूनो श्रीप्रसन्तरागस्य [॥]

REMARKS.

I add no translation, as the grant is so very similar to those Ilâo and Umêtâ

The only alterations in my former translation of the *Vaṁśâvali* which I think necessary, are :—

(1) L. 1. *Sakala°* must be construed with *rajanîkara* and be translated by 'full'

(2) L. 7. *Nistriṁśa-vikrama* means with reference to the lion 'the pitiless paw,' not 'the pitiless jump.'

In the preamble of the grant I propose to read *°niyuktakâdhikamahattarâdînt* and to translate the last two words by 'the *kanbis* the elders and so forth. The insertion of *t* at the end of *°âdînt*, i.e. *°âdînt*, is caused by the following *sa* and is archaic.

L. 9. read °प्रवृत्त°, °कर्पूर°; °पाण्डुर°.—L. 10, read लक्ष्मी°; °रोत्सं° भट्टस्तस्यात्मज.—L. 11, read, °ततमो-वृत्तिर°; °द्भासित°; °जीव°; समनुगतो.—L. 12. read, नृपान्व°; —प्रदीपता°—L. 13, read °युक्तकनियुक्तकाधिक°.—L. 15, read °तचातुर्वि°, कौशिकसगोत्र°.—L. 16, read महीधर°; °गो-विन्दाय °यज्ञादिक्रि°—L. 17. The first sign is altogether mis-shapen and looks nearly like a modern यो: °त्स-र्पणार्थं : °घाटनस्थानानि.—श in °द्वलिश is doubtful. L. 18. read पूर्वत; ग्रामो; °ग्राम, °ग्राम उत्तरतो; °ग्राम.—L. 19 read °राघाट; °सोपरिकरः; °हिरण्या°.—L. 20, read °कीयाना-मप्रवेश्य आ°; °न्द्रार्का°.—L. 21, read पूर्व°; संवत्स°.—L. 22, read ज्येष्ठामावास्यायां; सूर्य°; प्रतिपादितः.—L. 23, read °या.—L. 24, read °श्वर्याणि.—L. 25, दायो looks like द्रायो.—L. 27, read यश्चाज्ञान°; °मोदेत.—L. 28, read व्यासेन.—L. 29, read तान्येव; °र्थयशस्क°.— L. 30, read यत्नाद्रक्ष.—L. 31, read °राधिप; °तं चैत°.—L. 32, रेवादितेन is probably meant for रेवादित्येन; read श्रीवीत°; सूनोः श्रीप्रशान्त°.

TWO INSCRIPTIONS FROM TERAHI; [VIKRAMA-] SAMVAT 960.

BY PROF. F. KIELHORN, C.I.E., GÖTTINGEN.

Mr. Fleet has supplied me with rubbings, received from Sir Alexander Cunningham, of the two short inscriptions, which I shall mark here A. and B., mentioned in *Archæological Survey of India*, Vol. XXI. p. 177. The import of these inscriptions is clear enough, and it is very different from what it has been supposed to be; but only the rubbing of A. suffices for editing the inscription in full.

A.

According to Sir A. Cunningham, this inscription is on a prostrate pillar, near a temple outside '**Têrahi,**' a village on the 'Mohwar' river, in the state of Gwâlior, Long. 78° 1′ E., Lat. 25° 3′ N., Indian Atlas, quarter-sheet 52 N. E. It consists of 5 lines. The **writing** covers a space of about 1′3″ broad by 4″ high, and appears to be well preserved. The **size** of the letters is about ⅝.″ The **characters** are Dêvanâgarî; and the **language** is Sanskṛit.

The inscription is **dated** in the year 960, expressed by decimal figures only, on the fourth day of the dark half of the month Bhâdrapada, on Śani or Saturday. And it records that, on that day, there took place "here, on the **Madhuvêṇî,**" or the stream Madhu, a fight between the *mahâsâmantâdhipatis*, the illustrious **Guṇarâja** and the illustrious **Undabhaṭa,** in which the *koṭṭapâla*, or guardian of the fort, the illustrious Chânḍiyaṇa, an adherent or follower of Guṇarâja, was killed. The inscription closes with an Anushṭubh verse suitable to the occasion.

Referred to the Vikrama era **the date,** 960, taken as the year expired, or 961 current, Bhâdrapada va. di. 4, calculated by Dr. Schram's and Prof. Jacobi's tables, corresponds to **July 16th, 903 A.D., which was a Saturday, as required.** On that day, at sunrise, the fourth *tithi* of the dark half was current, and it ended about 14h. 53m. after mean sunrise. In 903 A.D. the solar month Bhâdrapada lasted from about sunrise of July 26th to about sunrise of August 26th, and since within that time there were two new-moons, one about 1h. 17m. before sunrise of July 27th, and the other about 7h. 35m. after sunrise of August 25th, there were in 903 A.D. two lunar months Bhâdrapada, and July 16th was the fourth of the dark half of the first of these two months. The fourth of the second, or *adhika*, dark fortnight of Bhâdrapada would have been Monday, August 15.

By a singular coincidence, I have lately received from Dr. Burgess an impression of that "huge inscription," existing "somewhere in the state of Gwâlior," which was mentioned in 1862 by Dr. F. E. Hall, in the *Jour. Beng. As. Soc.*, Vol. XXXI. p. 6, and which has been re-discovered by Dr. Burgess at **Sêrôn** (or **Siyaḍôṇî,** as it is called in the inscription itself), a place in the Lalitpur district of the North-Western Provinces, Long. 78° 23′ E., Lat. 24° 50′ N., Indian Atlas, quarter-sheet 70 N. W., about 27 miles S.E. of 'Têrahi.' And I am thus enabled to state that one of the two *mahâsâmantâdhipatis*, spoken of in the present inscription, is mentioned also in the Sêrôn inscription. For, in lines 4-6, that inscription records that during the reign of the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara* **Mahêndrapâladêva,** who meditated on the feet of the *p. m. p.* **Bhôjadêva,** in the year 964 (expressed both in words and by decimal figures) on the third of the dark half of the month Mârgaśiras, the illustrious **Undabhaṭa,** who is described as *mahâpratîhâra-samadhigatâśêshamahâśabda-mahâsâmantâdhipati*, being in residence at **Siyaḍôṇî,** made certain religious grants at that place. This statement is interesting, because it proves the correctness of my reading of the year of the present inscription, 960 (*not* 910), and because it shows that Undabhata was a general or feudatory of the paramount sovereigns of the country, the rulers of **Kanyakubja.** On the other hand, the date of the present inscription shows that the dates of the Sêrôn inscription must undoubtedly be referred to the Vikrama era.

The river **Madhu** or **Madhuvêṇi,** mentioned in the present inscription, I take to be the river 'Mohwar' of the maps, on which 'Têrahi' is situated.

B.

This inscription also is on a prostrate pillar, near the pillar which contains the inscription A. It consists of 5 lines. The **writing** covers a space of about 1′ ½″ broad by 3″ high, and

it is, judging from the rubbing, not well preserved. The **size** of the letters is about 3/8″. The **characters** are Dêvanâgarî; and the **language** is Sanskrit.

Like A., this inscription also begins with a **date,** of which the words and figures *Saṁ.* 960 *Bhâdrapada va. di.* 4 *Sanaiścharadinê* are clear, but in which the figure 4 for the day is preceded by another figure which may be 1 or 2, and which may either have been struck out or may possibly have reference to the fact that in the year 960 Bhadrapada, as I have shown above, was an intercalary month. Undoubtedly the inscription refers to the fight, spoken of in the inscription A., of the illustrious **Guṇarâja** and **Undabhaṭa,** whose names occur here in line 1, and it records the death in battle of another warrior, whose name ends in *varman* and who, in line 2, appears to be described as a *sâmanta* and *aśvapati.* The inscription also contains, in lines 2 and 3, the Anushṭubh verse with which the preceding inscription ends, and which is followed here, in lines 3-5, by another verse (?), the exact words and import of which I am unable to make out from the rubbing.

TEXT OF INSCRIPTION A.[1]

1 [Ôṁ][2] **Saṁ** [॥?][3] **960 Bhâdrapad[ê] va di 4 Sanau** ॥ Ady=êha **Madhuvêṇyâṁ** mahâsamaṁtâ-

2 dhipati-śrî-**Guṇarâja-Undabhaṭayôḥ** parasparam=bhaṇḍanâ saṁjâtâ [।*] Ta-

3 tra cha śrî-**Guṇarâja**-pâdapadm-opajîvî kóṭṭapâla-śrî-**Châṇḍiyaṇô**

4 nâmâ(ma) vyâpâditaḥ ॥ Jitêna[4] labhyatê lakshmî[r ?]=mṛitên=âpi surâṁganâ । kshaṇa-vidhvaṁsinî(ni) kâyê kâ chiṁtâ maraṇê raṇê ॥

FOLKLORE IN SOUTHERN INDIA.

BY PANDIT S. M. NATESA SASTRI, M. F. L. S.

No. XXV.—*Chandralêkhâ and the Eight Robbers.*

There was an ancient city named **Kaivalyam,** in the Pâṇḍiya country, and in that city there lived a **dancing girl** named **Muttumôhanâ.** She was an excellent gem of womankind, for though born of the dancing-girls' caste, she was a very learned and pious woman, and never would she taste her food without first going and worshipping in the temple to Siva. She moved in the society of kings, ministers and Brahmans, and never mingled with low people, however rich they might be. She had a daughter named **Chandralêkhâ,** whom she put to school along with the sons of kings, ministers and Brahmans. Chandralêkhâ showed signs of very great intelligence, even when she was beginning her alphabet, so that the master took the greatest care with her tuition, and in less than four years she began her lessons and became a great *paṇḍitâ.* However, as she was only a dancing-girl by birth, there was no objection to her attending to her studies in open school till she attained to maturity, and, accordingly, up to that age she attended the school and mastered the four *Vêdas,* the six *Sâstras* and the sixty-four varieties of knowledge.

She then ceased to attend the school, and Muttumôhanâ said to her:—"My darling daughter, for the last seven or eight years you have been taking lessons under the Brâhmaṇ, your master, in the various departments of knowledge, and you must now pay a large fee to remunerate your master's labours in having taught you so much. You are at liberty to take as much money as you please from my hoard."

So saying she handed over the key to her daughter, and Chandralêkhâ, delighted at her mother's sound advice, filled up five baskets with five thousand *mohars* in each, and setting them on the heads of five maid-servants, went to her master's house with betel leaves, arecanut, flowers and cocoanuts in a platter in her

---

[1] From the rubbing. [2] Expressed by a symbol.

[3] This may be a sign of punctuation, or it may possibly be the *akshara ni,* struck out.

[4] Metre, Śloka (Anushṭubh).—The first *akshara* of *jitêna* appears to have been altered to *ji,* and one certainly expects *jitêna* for *jitêna.* Compare the well-known verse of the *Pañchatantra* —

Mṛitaiḥ samprâpyatê svargô jîvadbhiḥ kîrtir=uttamâ ।
Tad=ubhâv=api śûrâṇâṁ guṇâv=êtau na durlabhau ॥

The reading, however, is *jitêna* in inscriptions in Southern India also, *e.g.* in two *vîrgals* or monumental tablets of heroes at Balagâmve and Sorab in Maisûr; *Pâli, Sanskrit, and Old-Kanarese Inscriptions,* Nos. 212, 225.—J. F. F.

hand, to be presented along with the money. The servants placed the baskets before the master and stood outside the house, while Chandralêkhâ took the dish of betel-leaves, nuts &c., and humbly prostrated herself on the ground before him. Then, rising up, she said: "My most holy *guru* (master), great are the pains your holiness undertook in instructing me and thus destroying the darkness of my ignorance. For the last eight years I have been a regular student under your holiness and all the branches of knowledge hath your holiness taught me. Though what I offer might be insufficient for the pains your holiness took in my case, still I humbly request your holiness to accept what I have brought."

Thus said she, and respectfully pushed the baskets of *mohars* and the betel-nut platter towards the Brâhman. She expected to hear benedictions from her tutor, but in that we shall see she was soon disappointed.

Replied the wretched Brâhman: "My dear Chandralêkhâ do you not know that I am the tutor of the prince, the minister's son and several others of great wealth in Kaivalyam? Of money I have more than enough. I do not want a single *mohar* from you. But what I want is that you should marry me.[1]

Thus spoke the shameless teacher, and Chandralêkhâ's face changed colour. She was horrified to hear such a suggestion from one whom she took till then to be an incarnation of perfection. But, still hoping to convince him of the unjustness of the request, she said: "My most holy master! The deep respect I entertain towards your holy feet is such that, though your holiness's words are plain, I am led to think that they are merely uttered to test my chastity. Does not your holiness know the rules by which a preceptor is to be regarded as a father, and that I thus stand in the relationship of a daughter to your holiness? So kindly forget all that your holiness has said, and accepting what I have brought in my humble state, permit me to go home."

But the wretched teacher never meant anything of the sort. He had spoken in earnest, and his silence now and lascivious look at once convinced the dancing-girl's daughter of what was passing in his mind. So she quickly went out and told her servants to take back the money.

At home Muttumôhanâ was anxiously awaiting the return of her daughter, and as soon as Chandralêkhâ came in without the usual cheerfulness in her face, and without having given the presents, her mother suspected that something had gone wrong, and enquired of her daughter the cause of her gloom. She then related to her mother the whole story of her interview with her old master. Muttumôhanâ was glad to find such a firm heart in her daughter, and blessed her, saying that she would be wedded to a young husband, and lead a chaste life, though born of the dancing-girls' caste. The money she safely locked up in her room.

Now, the Brâhman, in consequence of his disappointment, was very angry with Chandralêkhâ, and, that no young and wealthy gentleman might visit her house, he **spread reports** that Chandralêkhâ was **possessed by a demon** (*kuṭṭichchâtti*). So no one approached Chandralêkhâ's house to gain her love, and her mother was much vexed. Her great wish was that some respectable young man should secure her daughter's affections, but the master's rumours stood in the way. And thus a year passed and the belief that a *kuṭṭichchâtti* had possessed Chandralêkhâ gained firm ground.

After what seemed to these two to be a long period a sage happened to visit Muttumôhanâ's house, and she related to him all her daughter's story. He listened and said, "Since the belief that a demon has taken possession of your daughter has taken firm hold of the citizens, it is but necessary now that she should perform (*pûjâ*) **worship to the demon-king** on the night of the new-moon of this month **in the cremation-ground.** Let her do this and she will be all right, for then some worthy young gentleman can secure her affections.

So saying the sage went away, and his advice seemed to be reasonable to the mother. She very well knew that no such demon had possessed her daughter, but that it was all the master's idle report. But still, to wipe away any evil notion in the minds of the people she publicly proclaimed that her daughter would perform *pûjâ* in the cremation-ground at mid-

[1] There would of course be no real marriage between a dancing-girl and a Brâhman. Hence the insult.

night at the next new-moon.[2] Now, it is always the rule in such rites that the person who is possessed should go alone to the cremation-ground, and, accordingly, on the night of the next new moon, Chandralêkhâ went to the burning-ground with a basket containing all the necessary things of worship and a light.

Near Kaivalyam, at a distance of five *kôs* from it, was a great forest called *Khâṇḍavam*. In it there dwelt eight robbers, who used to commit the greatest havoc in the country round. At the time when Chandralêkhâ proceeded to the cremation-ground, these eight robbers also happened to go there to conceal what they had stolen in the earlier part of that night. Then, being relieved of their burden, they determined to go to some other place to plunder during the latter half of the night also. When Chandralêkhâ heard the sound of footsteps at a distance she feared something wrong, and, covering up her glittering light by means of her empty basket concealed herself in a hollow place. The thieves came and looked round about them. They found nobody, but, fearing that some one might be near, one of them took out an instrument called kannakkôl, and, whirling it round his head, threw it towards the east. This *kannakkôl* is the instrument by which these robbers bore holes in walls and enter buildings, and some robbers say they get it from a thunderbolt. During a stormy day they make a large heap of cow-dung, into which a thunder-bolt falls and leaves a rod in the middle, which is so powerful that it can bore even through stone-walls without making any noise. It has also the attribute of obeying its master's orders. So when the chief of the eight robbers threw his *kannakkôl* towards the east, true to its nature, it came into the hole in which Chandralêkhâ was lurking, and began to pierce her in her back. As soon as she felt it, she dragged it out by both her hands without making the slightest noise, and, throwing it under her feet, stood firmly over it. The robbers, having concealed the eight boxes of wealth they had brought with them in the sands near the cremation-ground, went away to spend the remaining part of the night usefully in their own fashion.

As soon as the robbers had left the place Chandralêkhâ came out, and, taking possession of the robbers' rod, took out the eight boxes that the robbers had buried. With these she quickly hastened home, where her mother was awaiting her return. She soon made her appearance, and related all that had occurred during the night to her mother. They soon removed the contents of the boxes and locked them up safely. Then, taking the empty boxes, she filled them up with stones, old iron and other useless materials, and, arranging them two and two by the side of each leg of her cot, went to sleep on it.

As the night was drawing to a close, the robbers, with still more booty, came to the ground, and were thunderstruck when they missed their boxes. But as the day was dawning they went away into the jungle, leaving the investigation of the matter to the next night. They were astonished at the trick that had been played upon them and were very anxious to find out the thief who had outwitted thieves. Now they were sure that their boring-rod, which they had aimed against the unknown person who might be lurking in the *smaśânam* (cremation-ground), must have wounded him. So one of them assumed the guise of an ointment-seller,[3] and, with some ointment in a cocoanut-bottle, began to walk the streets of Kaivalyam city, crying out "Ointment to sell. The best of ointments to cure new wounds and old sores. Please buy my ointment." And the other seven thieves assumed seven different disguises and also went wandering round the streets of the city. A maid-servant of Chandralêkhâ had seen that her mistress was suffering from the effects of a wound in her back, and never suspecting a thief in the medicine-seller, called out to the ointment-man, and took him inside the house. She then informed Chandralêkhâ that she had brought in an ointment man, and that she would do well to buy a little of his medicine for her wound. The clever Chandralêkhâ at once recognised the thief in the

[2] In stories of a master falling in love with the girl he has been teaching, he is usually himself made a soothsayer. In that capacity he asks the guardian (father or mother) to put the girl in a light box and to float her down a river. The girl in the box is taken by a young man, sometimes a prince, and becomes his wife. A tiger or a lion is then put into the box, and when the teacher, a great way down the river, takes the box and wishes to run away with the girl inside, he is torn to pieces, as a fit reward for his evil intentions, by the beast. But here the story takes a different turn.

[3] From this point up to the end we shall find the story to be similar to "Alî Bâbâ and the Forty Thieves" in the *Arabian Nights*, though the plot is different.

medicine-vendor, and he too, as he was a very cunning brute, recognised in the young lady the thief of his boxes, and found her wound to be that made by his boring-rod. They soon parted company. The lady bought a little ointment, and the thief in disguise, gladly giving a little of his precious stuff from his cocoanut bottle, went away. The eight thieves had appointed a place outside Kaivalyam for their rendezvous, and there they learnt who had robbed them of their treasure. Not wishing to remain idle, they chose that very night both to break into Chandralêkhâ's house and bring away herself and their boxes.

Chandralêkhâ, too, was very careful. She locked up all the treasures and kept the eight boxes filled with rubbish, so as to correspond with their original weights, under the cot which she slept, or rather pretended to sleep, that night. The thieves in due course made a hole into her bedroom and entered. They found her to all appearance sound asleep, and to their still greater joy they found beneath her cot their eight boxes.

"The vixen is asleep. Let us come to-morrow night and take her away; but first let us remove our boxes." So saying to each other, they took their boxes, each placing one on his head, and returned in haste to their cave which they reached early in the morning. But when they opened the boxes to sort out their booty, astonishment of astonishments, their eyes met only broken pieces of stone, lumps of iron and other such rubbish. Every one of them placed his forefinger at right angles to the tip of his nose, and exclaimed:—"Ah! A very clever girl. She has managed to deceive us all. But let this day pass. We shall see whether she will not fall into our hands to night."

Thus, in wonder and amazement, they spent the whole day. Nor was Chandralêkhâ idle at her own house. She was sure she would again see the robbers in her room that night, and, in order to be prepared for the occasion, she made a small sharp knife out of the robber's rod and kept it beneath her pillow, in the place where she was accustomed to keep her purse containing a few betel leaves, nuts, *chunam*, &c., to chew. The night came on. Early Chandralêkhâ had her supper and retired to bed. Sleep she could not, but she cunningly kept her eyelids closed and pretended to sleep. Even before it was midnight the eight thieves broke into her room, saying to themselves:—"This clever lady-thief sleeps soundly. We will do her no mischief here. Let us range ourselves two and two at each leg of her cot and carry her away unconscious to the woods. There we can all ravish her and kill her."

(To be continued).

MISCELLANEA.

A NOTE ON THE EPOCH AND RECKONING OF THE SAKA ERA.

General Sir A. Cunningham's Tables,[1] **and Ganpat Krishnaji's and Kero Lakshman Chhatre's almanacs**, shew the period from the 5th April, A.D. 1886, to the 24th March A.D. 1887, as corresponding to Śaka-Saṁvat 1808. So, also, **the Sâyana-Pañchâṅg** shews the same period, as corresponding to Saka-Samvat 1808, as the ordinary *nirayana* luni-solar year; the period covered by Śaka-Saṁvat 1808, as a *sâyana* year, being from the 6th March, A.D. 1886, to the 22nd February, A.D. 1887. For all purposes of calculation, however, this Śaka year has to be taken as "the year 1808, expired;" even if[2] we were working out the very first day of it, Chaitra śukla 1. The Tables are intended for this application of the number; and there are, in fact, no

[1] The proper method of applying his Tables may perhaps be inferred from his remarks (e. g. *Indian Eras*, pp. 5, 48, 52) that the numbers of the years in Hindu dates refer to years actually elapsed; and that the Hindus count only by completed years. But I am speaking of the meaning which the Tables present to a general reader, at first sight. Thus, anyone turning to his Table XVII. p. 199,—to which there is not attached a note that the Hindu years given therein are expired years,—in order to ascertain the Śaka equivalent of A.D. 1886-87, finds Saka-Samvat 1808; and naturally takes it as a current year. So, also, with any similar Tables; *e.g.* those in Mr. C. Patell's *Chronology*. Such Tables would be much more useful for general purposes, if they shewed the current Hindu years opposite the current Christian years, as is done in the case of the *samvatsaras* of the two cycles of Jupiter; leaving it to anyone who has to make a particular calculation, to take the preceding year as the basis of his work. And, in ordinary writing, the current Hindu years should certainly be quoted with the current Christian years.

[2] Unless with Tables based on the *Mêsha-Saṁkrânti*, or entrance of the sun into Aries, as Prof. K. L. Chhatre's Tables are; in which the Saka year is practically treated as commencing with the day of the *Mêsha-Saṁkrânti*. With such Tables, for any *tithi* connected with Saka-Samvat (1809 current and) 1808 expired, up to the *tithi* that coincided with the solar day on which the *Mêsha-Saṁkrânti* occurred, we must work with the basis of even one year still earlier, *viz.* Saka-Samvat 1807 expired.

grounds for doubting that the above period really is equivalent to Śaka-Saṁvat 1808 expired, and 1809 current. But it is quoted, for all ordinary purposes, simply as Śaka-Saṁvat 1808. And, if a Hindu were converting "Saturday, the 1st January, A.D. 1887," into its corresponding Hindu date, he would write down, as the result, "Sakê 1808 Pausha śukla saptamî Śanivâra:" in which, not only does he abstain from including any word meaning "expired," but he actually uses, instead even of the crude form *Saka*, the Sanskrit locative *Sakê*, which literally means "in Śaka (1808)," *i.e.* "while Śaka 1808 is current;" and this is the meaning which the mention of the year presents to any Hindu who is not an astronomer, and who is not acquainted with the technical application of the number of the year. So, also, the same expression is used in the almanacs themselves, thus, in the first two almanacs mentioned above, "Śakê 1808 Vyaya-nâma-saṁvatsarê," on the title-page; and "Śakê 1808 Chaitra-śukla-pakshah," on the top of the page which exhibits the bright fortnight of the month Chaitra; and, in the *Sâyana-Pañchâṅg*, "Sâlivâhana-Śakê 1808 Vyaya-nâma-saṁvatsarah," on the title-page, and elsewhere "amântaḥ Chaitra-śukla-pakshaḥ Sâlivâhana-Śakê 1808 Vyaya-nâma-saṁvatsaraḥ." In the same way, I find, for the same period, "Śakê 1808 Vyaya-nâma-saṁvatsarê" on the title-page of **an almanac published at Pandit Umacharan Muhatmim's Press at Gwâlior**; and for the period from the 17th March, A.D. 1885, to the 4th April, A.D. 1886, "Śâlibâhana-Śâkê 1807," on the title-page of the Jôdhpur **Chaṇḍû-Pañchâng** for that year, and "Śrî-Saṁvat 1942 Śakê 1807 Chaitra-śukla-pakshah," in **Bapu Deva Shastri's almanac**, prepared at Benares and published at Lakhnau.

Again, in the preliminary passages that introduce the *saṁvatsara-phala* or (*astrological*) results for the year, and other similar matter, **Ganpat Krishnaji's and K. L. Chhatre's almanacs** contain the passage—atha-gata-Kaliḥ 4987, śesha-Kaliḥ 427013, Svasti, śrîman-nṛipa-Vikramârka-samay-âtîta-saṁvat[3] 1942. Hêmalamba-nâma-saṁvatsarê; tathâ śrîman-nṛipa-Sâlivâhana-Śakê 1808, Vyaya-nâma-saṁvatsarê, asmin varshê râjâ chandrah,—"now the expired (*portion of the* Kali (*age*) (*is*) 4987 (*years*); (*and*) the remainder of the Kali (*age*) (*is*) 427013 (*years*). Hail! In the year 1942 expired from the time of the glorious king Vikramârka,[4] (*and*) in the Hêmalamba *saṁvatsara*, so also in the Śaka (*year*) 1808 of the glorious king Śâlivâhana, (*and*) in the Vyaya *saṁvatsara*; in this year, the king (*is*) the Moon." And, for the *nirayana* year, **the Sâyana-Pañchâṅg** for Śaka-Saṁvat 1808 has—Kaliyugasya gata-varshâṇi 4987: śrîman-nṛipa-Vikramârka-saṁvat[5] 1943 Vilambi-saṁvatsarah: śrîman-nṛipa-Śâlivâhana-Śak-âbdaḥ 1808 Vyaya-nâma-saṁvatsaraḥ: ath=âsmin varshê râjâ chandraḥ,—"the expired years of the Kaliyuga (*are*) 4987, in the year 1943 of the glorious king Vikramârka, (*there is*) the *saṁvatsara* named Vilambin: (*and there is*) the year 1808 of the Śaka of the glorious king Śâlivâhana, (*and*) the *saṁvatsara* named Vyaya; now, in this year, the king (*is*) the Moon." In these passages, these three almanacs again treat the Saka year, apparently, as a current year. **The Gwâlior almanac**, however, which I have quoted above, has—gata-Kaliḥ 4987, śêsha-Kaliḥ 427013 . . . . ; tan-madhyê gata-Śakaḥ 1808, śêsha-Śakaḥ 16192 . . . . Svasti; śrî-Vikramârka-râjya-samayâd atît saṁvat[6] 1943, Śaka-gata-varshêshu 1808, châṇdra-mânêna Vyaya nâma-saṁvatsarê: Bârhaspatya-mânêna, Śakê 1807 Âśvina-krishṇa-7 Śukrê sûry-ôdayâd gata-ghaṭîshu 47 palêshu 24 tad-avadhi, Sakê 1808 Âśvina-krishṇa-14 Bhaumê ghaṭî[shu*] 46 palê[shu*] 3 tâvat-paryantaṁ, Vilambi-saṁvatsar-ôllêkhaḥ vidhêyaḥ, tad-agrê Vikâri-saṁvatsar-ôllêkhah kâryah; Chaitr-âdau râjâ chandrah, — "the expired (*portion of the*) Kali (*age*) (*is*) 4987 (*years*), (*and*) the remainder of the Kali (*age*) is 427013 (*years*). . . . . : in it, the expired *portion of the* Śaka (*era*) (*is*) 1808 (*years*), and the remainder of the Śaka (*era*) (*is*) 16192 (*years*) . . . . Hail! In the year 1943 expired from the time of the reign of the glorious Vikramârka, (*and*) in the expired Saka year 1808, (*and*), by the lunar reckoning, in the (*current*) *saṁvatsara* named Vyaya,[7]—by the reckoning of Jupiter, the Vilambin *saṁvatsara* is to be used in writings from the expiration of 17 *ghaṭis*, 24 *palas*, from sunrise on Friday, the seventh lunar day of the dark fortnight of Âśvina, Śaka 1807,

[3] i.e. *saṁvatsarê*, or *saṁvatsarêshu*.

[4] It is curious that here the Vikrama year should be distinctly specified as expired, while the Saka year is not qualified in the same manner, as if a distinction were being made in the method of reckoning the two eras.

[5] i.e. *saṁvatsarê*, or *saṁvatsarêshu*.—The figures here, and in the Gwâlior almanac, 1943, differ from those in Ganpat Krishnaji's and K. L. Chhatre's almanacs, 1942, because the latter quote the southern reckoning by which each Vikrama year commences with the month Kârttika, seven lunations later than the same year in the northern reckoning: consequently, at the commencement of Śaka-Saṁvat 1808 (expired), on the first day of the bright fortnight of Chaitra, Vikrama-Saṁvat 1942 was still running, by the southern reckoning.

[6] i.e. *atîtê saṁvatsarê*, or *atîtêshu saṁvatsarêshu*.

[7] The context is "at the beginning of Chaitra, the king (is) the moon," a little further on. The intervening matter is by way of a parenthesis.

up to (*the expiration of*) 46 *ghaṭis. palas* (*from sunrise*) on Tuesday, the fourteenth lunar day of the dark fortnight of Âśvina, in Śaka 1808; after that, the Vikârin *saṁvatsara* is to be used in writings,—at the beginning of Chaitra, the king (*is*) the Moon." Passages of a similar kind with those quoted above, occur at the end of each almanac, in connection with the *Saṁkrântis*.

In the same passages for the *sâyana* year, Śaka-Saṁvat 1808, the **Sâyana-Pañchâṅg** does not confine itself to any indefinite expression, but explicitly quotes the Śaka year as a current year; thus — Kaliyugasya saṁdhyâyâ âditaḥ, Śâlivâhana-Śak-ârambhakâla-paryantaṁ, Nand-âdr-indu-guṇa-(3179)-mitâni saura-varshâṇy=atîtâni; pravartamâna-Śâlivâhana-Śak-âbdaḥ asht-ôttar-âshṭâdaśa-(1808)-mitaḥ; amuṁ saṁvatsaram Narmadâyâ dakshiṇa-bhâge Vyaya-nâmnâ vyavaharanti, uttara-bhâgê cha Vilambi-nâmnâ; ath=âsmin varshê râjâ Śaniḥ,—"from the commencement of the *saṁdhyâ*[8] of the Kali-yuga, up to the time of the commencement of the Śâlivâhana-Śaka, there expired solar years which are measured by the (nine) Nandas, the (seven) mountains, the (one) moon, and the (three) qualities, (3179); (*and*) the current year of the Śâlivâhana-Śaka is measured by eighteen hundred, increased by eight, (1808); on the south side of the Narmadâ, they distinguish this *saṁvatsara* by the name of Vyaya; and, on the north side, by the name of Vilambin; now, in this year, the king (*is*) Saturn." But, in the corresponding passage in the same almanac for the preceding year, Śaka-Saṁvat 1807, after giving in the same words the number of the solar years that had expired from the commencement of the *saṁdhyâ* of the Kaliyuga up to the commencement of the Śaka era, the text runs—tatô vartamâna-vatsar-ârambhakâla-paryantaṁsapt-ôttar-âshṭâdaśa-śata-(1807)-mitâni varshâṇi gatâni; amuṁ vartamâna-saṁvatsaraṁ Narmadâyâ dakshiṇê bhâgê Pârthiva-nâmnâ vyavaharanti, uttarê bhâge cha Hêmalamba-nâmnâ; ath=âsmin varshê râjâ Bhaumaḥ,—"from then, up to the commencement of the current year, there have expired years which are measured by eighteen hundred, increased by seven, (1807); on the south side of the Narmadâ, they distinguish this current *saṁvatsara* by the name of Pârthiva; and, on the north side, by the name of Hêmalamba; now in this year, the king (*is*) Mars."[9] In passing, therefore, from Śaka-Saṁvat 1807 to 1808, a verbal distinction, at least, was made between expired and current years; and the phraseology adopted in the almanac for Śaka-Saṁvat 1808, has been repeated in the almanac for the next year, 1809. In one instance, A.D. 1885-86, the Pârthiva or Hêmalamba *saṁvatsara*, each current, was treated as equivalent to Śaka-Saṁvat 1807 expired; while, in the other, A.D. 1886-87, the Vyaya or Vilambin *saṁvatsara*, each current, and each the next in the cycle after respectively Pârthiva and Hêmalamba, is treated as equivalent to Śaka-Saṁvat 1808 current. What were the reasons for this change. I do not know; and I will leave it to Mr. Sh. B. Dikshit one of the editors of the almanac, to explain them. But, by the literal interpretation of the phraseology for A.D. 1885-86, and in accordance with the principles of the Tables, that period was equivalent to Śaka-Saṁvat 1807 expired, (and 1808 current); and A.D. 1886-87 should have been described as being represented by Śaka-Saṁvat 1808 expired, (and 1809 current.)[10]

I have now to quote the fact that, in **Madras**, the same English period, A.D. 1886-87, is actually called Śaka-Saṁvat 1809, with the same *saṁvatsara* of the Sixty-Year Cycle, Vyaya, attached to it. There are, it is true, two somewhat varying practices to be found in Southern India. Thus, **the Telugu Siddhânta-Pañchâṅgam,** published, I think, in the Arcot District, gives the luni-solar period from the 5th April, A.D. 1886, to the 24th March, A.D. 1887, as being the Vyaya *saṁvatsara*, and as corresponding to Śaka-Saṁvat 1808 expired; and, at the commencement, it quotes the expired years throughout; thus—"Kaliyuga-gat âbdâh 4987; Śâlivâhana-Śaka-gat-âbdâh 1808; Vikramarka-Śaka-gat-âbdâh 1943." But, on the other hand, the **Telugu Calendar**, published at Madras, gives the same luni-solar period, from the 5th April, A.D. 1886, to the 24th March, A.D. 1887, as being the Vyaya *saṁvatsara*, and as corresponding to Śaka-Saṁvat 1809, Kaliyuga-Saṁvat 4988, and Vikrama-Saṁvat 1944, which are not specified as either current or expired, but can only be

[8] *saṁdhyâ*, which is usually translatable by 'morning or evening twilight,' means, as applied to any of the four ages, a long period that runs at the commencement of each, before the full development of the age itself. The *saṁdhyâ* of the Kali age is one hundred divine years, equivalent to 36,000 years of men; so that we are still only in this period. The age itself will run for 360,000 years of men. And it will end with a *saṁdhyâṁśa* of 36,000 years of men. These figures make up the total of 432,000 years in the age.

[9] Except for reading *amuṁ vartamâna-vatsaram*, and omitting *atha* before *asmin varshê*, the text is exactly the same in Bapu Deva Shastri's almanac for Śaka-Saṁvat 1807. I have not been able to obtain a copy of his almanac for the next year.

[10] I had drawn Mr. Sh. B. Dikshit's attention to the circumstances of the case. And I now find that, in their almanac for Śaka-Saṁvat 1810 (expired) (A.D. 1888-89), the editors of the *Sâyana-Pañchâṅg* have reverted to the phraseology used in their almanac for Śaka-Saṁvat 1807 (expired).

intended as current. And, in the same way, **the Tamil Siriya-Pañchâṅgaṁ,** for the following year, published at Madras, gives the solar period from the 12th April, A.D. 1887, to the 11th April, A.D. 1888, as being the Sarvajit *saṁvatsara*, and as corresponding to Śaka-Saṁvat 1810, Kaliyuga-Saṁvat 4989, and Vikrama-Saṁvat[11] 1935, which, similarly, are not specified as either current or expired, but can only be intended as current.[12] And, from other indications, there seems to be no doubt that, of these two practices of Southern India, thus illustrated, the popular and generally current one is the latter one, by which the period A.D. 1886-87, is quoted as Saka-Saṁvat 1809; the reckoning, in this and the other eras, being thus, at first sight, one year in advance of the customary reckoning of Northern and Western India.

The difference, however, is only an apparent one; and is due to the evident fact that **the Madras reckoning has preserved the system of current years, while the other is regulated by expired years.** But it is almost always the reckoning of Northern and Western India that is now quoted. And the years of it, though really expired years, are not distinctly and habitually quoted as such. And hence there is a general understanding that, as between the Śaka and the Christian eras, the additive quantity, to be applied to the former, is 78-79,[13] and that the epoch or year 0 of the Śaka era, is the period from the 3rd March, A.D. 78, to the 20th February, A.D. 79, both included; and its commencement, or first current year, the period from the 21st February, A.D. 79, to the 10th March, A.D. 80, both included.[14] This, however, really gives current Christian years, equivalent to expired Śaka years. It is evident from the details given above regarding Śaka-Saṁvat 1808 and 1809, that, according to the reckoning of the era as fixed by the early astronomers, and as preserved to the present day, **the true epoch is A.D. 77-78,** and the period from the 3rd March, A.D. 78, to the 20th February, A.D. 79, is in reality the commencement, or first current year; and that, **to obtain current Christian years, equivalent to current Saka years, the true additive quantity is 77-78.** But, of course, there is always the possibility that, if ever we obtain a date, with full details for calculation, in a very early Śaka year, or in one of the very earliest of the regnal or dynastic years which afterwards developed into the Śaka era, this exact equation may not hold good; in consequence of the date belonging to a period anterior to the adoption of the era by the astronomers.

The Saka era is emphatically one of the eras that originated in an extension of regnal or dynastic years. The chief Hindu tradition about it, is, that it was founded in celebration of a defeat of the Śaka king by the king Vikrama or Vikramâditya who is also the supposed founder of the Vikrama era, commencing a hundred and thirty-five years earlier.[15] This tradition is

---

[11] Here the 3 in the tens place must be a mistake for 4.

[12] It would appear that the Tamil *Vâkya-Pañchâṅgaṁ*, published at Madras, gives the solar period from the 12th April, A.D. 1887, to the 10th April A.D. 1888, as being the Sarvajit *saṁvatsara*, and as corresponding to Śaka-Saṁvat 1809, Kaliyuga-Saṁvat 4988 and Vikrama-Saṁvat 1945; all of which are distinctly specified as current. But this cannot possibly be correct, in respect of the Saka and Kaliyuga years.

[13] Thus, even Dr. R. G. Bhandarkar,—through whose "Note on the Śaka Dates and the Years of the Bârhaspatya Cycle, occurring in the Inscriptions" (*Early History of the Dekkan*, p. 105ff.) my attention was first drawn to the desirability of examining the details of the almanacs,—has written (*id.* p. 99; the italics are his) "191 Gupta *past* + 242 = 433 Śaka *current* + 78 = 511 A.D. *current* . . . . 209 Gupta *past* + 242 = 451 Śaka *current* + 78 = 529 A.D. *current*." I myself had the same view, till not very long ago. Other writers could easily be shewn to have lain under the same misconception. And Dr. Burnell even went so far as to say (*South-Indian Palæography*, p. 72, note) "the rough equation for converting this era into the Christian date, is + 78¼. The beginning of the year being at the March equinox, if the Śaka *atîta*" (*i.e.* expired) "year be mentioned the equation is + 79¼."

[14] I owe these four dates to Mr. Sh. B. Dikshit. Gen. Cunningham (*Indian Eras*, p. 139) gives from the 14th March, A.D. 78, to the 17th February, A.D. 79, and from the 18th February, A.D. 79, to the 8th March, A.D. 80. But a comparison of his initial days for the epoch and the first year, shews at once that there is some mistake. The 18th February is twenty-four days earlier than the 14th March; whereas the difference should be only eleven days. Mr. C. Patell (*Chronology*, p. 96) does not give the initial day of the epoch; but gives, in the same way, the period from the 18th February, A.D. 79, to the 8th March, A.D. 80, for the first year.

[15] Another tradition (e.g. *Prinsep's Essays*, Vol. II. Useful Tables, p. 154) is that the era dates from the birth of Śâlivâhana, king of Pratishṭhâna, who opposed Vikramâditya, king of Ujjayini. But the introduction of the name of Śâlivâhana in connection with the era, is of comparatively modern date, the earliest instance that I have succeeded in obtaining, being one of the thirteenth century A.D.; and the epigraphical instances speak of the year as having been 'established, settled, or decided' (*nirmîta*) by Śâlivâhana, but not as running from his birth (see *ante*, Vol. XII. p. 214f.)—A passage to the latter effect has been quoted by Prof. Max Müller (*India; What can it teach us?* p. 300 f.) from the *Muhûrtabhûraṇônmârtaṇḍa* of Nârâyaṇa, which means "in the year measured by three, the (nine) numerals, and the (fourteen) Indras, from the birth of Śâlivâhana (*i.e.* in Saka-Saṁvat 1493), in (the month) Tapas (Mâgha), this *Mârtaṇḍa* was composed"—As Prof. Max Müller has pointed out, in his comments on this passage, it is not exactly wrong to speak of the era as the Śâlivâhana-Śaka or Śâlivâhana era; for there are ample instances in which the Hindus give it that name, in epigraphical records of authority and of some antiquity. At the same time, those instances shew that it was only in comparatively modern times that the name of Śâlivâhana came to be connected with the era. And in all discussions respecting early dates, it is an anachronism, and a mistake, to call the era by his name

mentioned by Albêrûnî;[16] but he saw through it so far as to remark "since there is a long interval between the era which is called the era of Vikramâditya and the killing of Śaka, we think that that Vikramâditya from whom the era has got its name is not identical with that one who killed Śaka, but only a namesake of his." And the tradition has now been quite exploded by the Bâdâmi cave inscription of the Chalukya king Mangaliśa,[17] which is specifically dated "when there have expired five centuries of the years of the installation of the Śaka king (or kings) in the sovereignty." It is certain, from this record, that the real historical starting-point of the era, is the commencement of the reign of some particular king, or kings, of the Śaka tribe; and, therefore, that the years were originally regnal or dynastic years. Now, such years must run on for a considerable time, before they can develop into a recognised era; and this is undoubtedly the reason why we find the earlier years of every such Hindu era quoted simply by the term *varsha* or *saṁvatsara*, 'a year,' without any dynastic appellation. Again, such regnal or dynastic years can only come to be quoted as expired years, when they have actually developed into an era which has become recognised, or is sought to be applied, by astronomers for astronomical processes; up to that point, the years, being wanted only for quasi-private dynastic purposes, would certainly be quoted as current years. It is impossible to believe that the first Śaka king decreed, immediately after his coronation, that a new era had been established from that event; that it was to come at once into general use; and that, for the convenience of astronomers, the first year, then running, was to be quoted as an expired year, which, in fact, it would be rather difficult to do. If it were sought to fix the exact chronological position of any public act performed in that first year, it might be referred to the expired years of an earlier era; *e.g.* of that of the Kaliyuga. But, for any reference to the regnal year alone, that act would be recorded as being performed "in the year one," "in the first year," or "while the first year of the reign is current;" as, for instance, "in the first year; while the *Mahârâjâdhirâja*, the glorious Tôramâna, is governing the earth," in line 1 f. of the Êran inscription, *Corp. Inscr. Ind.* Vol. III. No. 36, page 158. This custom would continue as long as the years were simply dynastic years; and perhaps, during the whole of that period, the years might remain purely dynastic years, each of them having for its initial day the anniversary of the original coronation from which they started, irrespective of the initial day of the years of the astronomical era still continuing in use. When, however, astronomers came to adopt them as an astronomical era, they would establish an exact epoch by reckoning back from the dynastic year then current to the last year of the Kaliyuga that had expired when the first current dynastic year commenced; in the course of which they would simplify matters by allotting to the dynastic years the same scheme, as regards the starting-point of each year, and the arrangement of the fortnights of the months, which belonged to the Kaliyuga in their part of the country. Thus they would fix all the data necessary to enable them to use the new era for astronomical purposes. All that would remain, would be to use its expired years, in accordance with the custom and necessities of their science. The substitution of the Śaka era for the Kaliyuga, for astronomical purposes, seems to have taken place after the time of Âryabhaṭa (born A.D. 476),[18] who used the Kaliyuga, and in or just before the time of Varâhamihira (died A.D. 587),[19] who used the Śaka era; and probably the apparent difference of one year in the reckonings of the Śaka era will be found to have originated not far from Śaka-Samvat 500. Let us assume that this adoption of the Śaka era was made in Śaka-Saṁvat 500, equivalent to A.D. 577-78. The astronomers would take it, at starting, as "Śaka-Saṁvat 499, expired;" and, in quoting it and several subsequent years, would probably be careful to connect with each year a word distinctly meaning "expired." In course of time, however, such precision of expression would come to seem superfluous to them; and, in issuing their almanacs, they would drop the word "expired," and would write, for instance, simply "Śakê 510 Chaitra-mâsa-śukla-pakshah." It would cause no difference or inconvenience to them; because any initiate would know that this really designated the bright fortnight of the month Chaitra of Śaka-Saṁvat 511 current, after Śaka-Saṁvat 510 had expired. The people at large, however, including persons who would use the almanacs for practical purposes without being properly initiated into the application of them, would be thrown back in their reckoning by a year; and doubtless at first a good deal of inconvenience and confusion might result. But this would soon be forgotten; or might, for the sake of convenience, be inten-

[16] Sachau's *Albêrûnî's India*, Translation, Vol. II. p. 6

[17] *ante*, Vol VI p 363 f., and Vol. X. p. 57 ff.

[18] *Jour. R. As. Soc.* N. S. Vol. I. p 405.

[19] *id.* p. 407.

tionally put aside. And thus they would very quickly arrive at the understanding, by which, in Northern and Western India, Śaka-Saṁvat 1808 answers, popularly, as a current year, not as an expired year, to the period from the 5th April, A.D. 1886, to the 24th March, A.D. 1887.

J. F. FLEET.

CALCULATIONS OF HINDU DATES.

No. 11.

In the **Nêpâl stone inscription of Mânadêva,** of the Suryavaṁśi or Lichchhavi family of Mânagṛiha, on the lower part of a broken pillar placed to the left of the door of the temple of the god Chângu-Nârâyana, about five miles to the north-east of **Khâṭmâṇḍu,** the date (from Dr. Bhagwanlal Indraji's published text and lithograph; *ante,* Vol. IX p. 163, line 1f.) runs—samvat 300 80 6 Jyêshtha-m[â]sa-śukla-pakshê pratipadi 1 [Rô]hiṇî-nakshattra-yukt[ê*] chandramasi m[u]hûrttê praśaste=Bhijiti,—"the year 300 (*and*) 80 (*and*) 6; in the bright fortnight of the month Jyêshṭha, on the first *tithi* or lunar day, (*or in figures*) 1; the moon being in conjunction with the Rohiṇî *nakshatra*; in the excellent *muhûrta* (*named*) Abhijit."

The Nêpâl inscriptions were first brought to notice by Dr. Bhagwanlal Indraji, in this Journal, Vol IX. p. 163ff.; and his view of the historical results of them was given in Vol. XIII p. 411ff. My own view has been published in Vol. XIV. p. 342ff. And all that it is necessary to state here, is, that the earliest inscriptions disclose the use of two eras; *viz.* the so-called Gupta era, and the Harsha era. At the time, however, when Dr. Bhagwanlal Indraji wrote, the fact that the Gupta era was used in some of these records, was not apparent And it only became clear on Mr Bendall's discovery of the Gôlmâḍhitôl inscription of the *Mahârâja* Śivadêva I. of Mânagriha, which he published originally in this Journal, Vol. XIV. p. 97f., and has given again with a slight correction in the reading of the date, in his *Journey in Nêpal and Northern India,* p. 72, and Plate viii This inscription is dated in the year 316, without any specification of the era. But the clue to the interpretation of the date is given by its mention of the *Mahâsâmanta* Aṁśuvarman, as the contemporary[1] of Śivadeva I. Aṁśuvarman's approximate date, *viz.* about A D. 637, was very well known from Hiuen Tsiang's mention of him.[2] And, as the Nêpâl series included three inscriptions of Aṁśuvarman himself, dated in the years 34, 39, and 44 or 45 of an unspecified era, and another, of Jishnugupta, dated in the year 48, and mentioning Aṁśuvarman, Dr. Bhagwanlal Indraji very properly referred these dates to the era running from the accession of Harshavardhana of Kanauj, and commencing[3] in A.D. 606. This much being quite certain, it follows that the date of the year 316 for Śivadêva I., the contemporary of Aṁśuvarman, must of necessity be referred to a starting-point just about three hundred years before the Harsha era. And the era which exactly meets the requirements of the case is the Gupta era; for, 316 + A.D. 319-20 = A.D. 635-36; which is in due accordance with the recorded dates that we have for Aṁśuvarman in the Harsha era, representing from A.D. 639 to 649 or 650.

As regards the present inscription of **Mânadêva,** its palæography, as well as a general consideration of the historical results, shews that the year 386, quoted in it, belongs to the same series with the year 316, that is quoted in the Golmâḍhiṭôl inscription of Śivadêva I. And accordingly, this record gives us, for calculation, Gupta-Saṁvat 386, current; the month Jyêshṭha (May-June); the bright fortnight; the first *tithi* or lunar day; **the Rôhiṇi nakshatra,** or lunar mansion; and **the Abhijit muhûrta** or thirtieth part of the day and night. And the given *tithi* should belong to Gupta-Saṁvat 386 + 242 = Śaka-Saṁvat 628 current (A.D. 705-706); and the calculation should be made with the basis of Śaka-Saṁvat 627 expired. This is on the analogy of the results obtained from the Êraṇ pillar inscription of Budhagupta,[4] of Gupta-Saṁvat 165, and the Verâwal inscription of the Chaulukya king Arjunadêva,[5] of Valabhî-Saṁvat 945. In each instance, the approximate year for calculation was arrived at by following Albêrûnî's most specific statement regarding an even difference of two hundred and forty-one years between the Gupta-Valabhî and Śaka eras; and it was then found that correct results were obtained only by taking the resulting Śaka year as an expired year. Thus, in the Êran record, the result was obtained with the basis of Gupta-Saṁvat 165 (current) + 241 = Śaka-Saṁvat 406, expired; and, in the Verâwal record, with the basis of Valabhî-Saṁvat 945 + 241 =

---

[1] This is also recorded in the other inscription of Śivadeva I., No 5 of Dr. Bhagwanlal Indraji's Nêpâl series, *ante,* Vol. IX. p 168ff. But, unfortunately for the general chronological results arrived at by him from those inscriptions—which involved the application of the Vikrama era for the interpretation of such of the Nêpal dates as belong really to the Gupta era,—the date of Śivadeva I is there broken away and lost.

[2] See Beal's *Buddh. Rec. West. World,* Vol II. p. 81. also *ante* Vol. XIII. p. 422. and Vol. XIV. p. 345.

[3] On this point, a separate note will be issued hereafter.

[4] *ante,* Vol. XVI. p. 151 f.

[5] *id.* p 147ff.

Śaka-Samvat 1186, expired. And from this it is evident that, in following Albêrûnî's statement and adding two hundred and forty-one, what is really accomplished is the conversion of a given current Gupta-Valabhî year into an expired Śaka year, by which we obtain precisely the basis that is wanted for working out results by Hindu Tables, *viz.* the last Śaka year expired before the commencement of the current Śaka year corresponding to a given current Gupta-Valabhî year; and that the running difference between current Gupta-Valabhî and current Śaka years, is two hundred and forty-two.

Making the calculations by the *Sûrya-Siddhânta*, and applying the results to the longitude of Khâṭmâṇḍu, Mr. Sh B. Dikshit finds that, with the basis of Śaka-Saṁvat 627 expired, **the given tithi, belonging to Saka-Saṁvat 628 current, ended on Tuesday, the 28th April,[6] A.D. 705,** at 57 *ghaṭîs*, 12 *palas*, after sunrise; that there was the Krittikâ *nakshatra* up to 11 *ghaṭîs*, 3 *palas*, after sunrise, and then the **Rôhiṇî nakshatra,** which continued up to 11 *ghaṭîs*, 18 *palas*, after sunrise on the next day, Wednesday; and that, consequently, the **Abhijit muhûrta,** being the eighth in order among the *muhûrtas*, and beginning after the expiration of fourteen *ghaṭîs* after sunrise, occurred, as required by the record, while the Rôhiṇî *nakshatra* was current. He also finds that the same conditions of the *nakshatra* and the *muhûrta* did not occur, if the given *tithi* is treated as belonging to Śaka-Saṁvat 627 or 629 current. The result, therefore, answers fully to the conditions of the record; and to the circumstances under which it was to be calculated.

No 12.

The **Môrbî copper-plate grant of Jâiṅka, from Kâṭhiâwâḍ,** published by Dr. R. G Bhandarkar in this Journal, Vol. II. p. 257f., includes two dates. In line 16f., in connection with the making of the grant, we have (from the published lithograph)—pamch-âśityâ yutê=titê samânâm śata-pañchakê | Gôptê dadâv=adô nṛipaḥ s-ôparâgê=rkka-maṁḍalê ||,—"five centuries of years, together with eighty-five (*years*), having passed by, the king gave this (*charter*) at (*the village of*) Gôpta, when the disc of the sun was eclipsed:" in which the year is expressly coupled with a word meaning "expired." And in line 19f., in connection with the writing of the charter, we have—saṁvat 585 Phâlguna su(śu) di 5,—"the year 585; the month Phâlguna; the bright fortnight; the (civil) day 5;" without any indication whether the year is an expired one, or current. The eclipse is also mentioned in line 3, in the words — mârttaṇḍa-maṇḍal-âśrayiṇi Svavbhânô (*read* Svarbhbhânau),—"while Svarbhânu (*i.e.* Râhu, the the personified ascending node) is resting on the disc of the sun."

There is some difficulty in disposing finally of the whole bearing of this record; owing to the fact that the first plate was lost sight of, without being procured for examination at all; and now, even the second plate also, the published one, has been mislaid and is not forthcoming. And I have to point out that, in the second part of the verse, Dr R. G. Bhandarkar read *Gauptê*, instead of *Gôptê*; and translated "five hundred and eighty-five years of the Guptas having elapsed." The lithograph, however, shews distinctly that the original has *Gôptê*; and it is only by the correction of *ô* into *au* that the name of the Guptas can be introduced into the passage.[7] But, even then, the adjective *Gauptê* occupies an irregularly detached place, which any skilful composer would have avoided, from the noun, *śata-pañchakê*, which it qualifies. While, on the other hand, I have shewn, in my remarks on the nomenclature of the era,[8] that we have no reason at all to look for the use of such an adjective as *Gaupta*, 'belonging to the Guptas;' and, if we maintain the original reading of *Gôptê*, we have a locative case, which we have every reason to expect in immediate connection with the verb *dadau*, 'he gave,' and which will then give us the name of the village at which the grant was made. And, until the original first plate of the grant is produced, to prove that Gôpta was not the name of the village,[9] or otherwise to explain the passage, this is the reading and interpretation that I adopt.

In accordance, however, with the palæography of the grant, I see no reason for referring the date to any except the Gupta-Valabhî era, irrespective of the question whether the era is mentioned by name, or not. This record, therefore, gives us, for calculation, an **eclipse of the sun,** which took place on some unspecified date in Gupta-Saṁvat 586 current, as the original

[6] Śaka-Saṁvat 628 current commenced rather early on, approximately, Sunday, the 1st March, A.D. 705. And hence the reason why the month Jyêshtha, which ordinarily answers to May-June, commenced on the 28th April, and of course ended before the end of May.

[7] The mistake of *ô* for *au* does occur in the word *svarbhânô* for *svarbhbhânau*, in line 3 of the grant. But in line 9, in the word *paurvva*, the *au* is formed quite correctly and completely.

[8] See, when issued shortly, *Corpus Inscriptionum Indicarum*, Vol. III. Introduction, p. 19 ff.

[9] We might easily find its present representative in the modern name of Gôp, which occurs in the case of a village, in Kâṭhiâwâḍ, about seventy-five miles south-west of Môrbî; twenty-five miles south of **Nawânagar** or Jâmnagar; and fifty miles east of Dhiṇki, where there was found the copper-plate grant of **Jâikadêva,** which purports to be dated in Vikrama-Samvat **794.**

text specifies that the year 585 had expired. And, on the analogy noted under No. 11 above, the eclipse should be found in Gupta-Saṁvat 586 + 242 = Śaka-Saṁvat 828 current, somewhere between[10] the 10th March, A.D. 905, and the 27th February, A.D. 906. Also, it should presumably, be visible at the place at which the grant was made on the occasion of it. And, though there is nothing, in the existing remnant of the record, to indicate with certainty the exact locality to which it belongs, still there is nothing against the supposition that it really belongs to Môrbî itself, or to that neighbourhood. We have, therefore, to look for a solar eclipse, occurring in Śaka-Saṁvat 828 current, and visible at Môrbî, or near that town, in the north of Kâṭhiâwâḍ.

Gen. Sir A. Cunningham's Table[11] mentions no solar eclipse as having occurred during the period defined above. But, by calculations from Prof. K L. Chhatre's Tables, Mr Sh. B. Dikshit finds[12] that there was an **eclipse of the sun, on Tuesday, the 7th May, A.D. 905,** corresponding to the new-moon *tithi* of the *Pûrṇimânta* northern Jyêshṭha of Śaka-Saṁvat 828 current, which fully answers the required conditions.[13] It was visible at Môrbî; over almost the whole of Southern India; and in Ceylon. The magnitude, at Môrbî, was one ninth of the sun's disc; and, in the southern parts of India, greater than this. And the middle of the eclipse, at Môrbî, was at 12·9 midday of the Môrbî mean civil time. This eclipse, accordingly, was very distinctly visible at Môrbî; even if it was not known beforehand from calculations. And this result answers fully to the conditions of the record; and to the circumstances under which it was to be calculated

In respect of the given civil day for the writing of the charter, *viz.* the fifth civil day in the bright fortnight of the month Phâlguna (February-March), as the name of the weekday is not given, the only test that we can apply,—if, indeed, it does really amount to a test,—is the presumption that the running number of the lunar *tithi* is the same as that of the civil day, *i.e.* that the fifth lunar *tithi* ended on the fifth civil day of the fortnight. If the year 586, connected with this civil day, is to be taken as expired, as in connection with the eclipse, this should be the case in Śaka-Saṁvat 828 current. And, by calculations for that year from Prof. K. L. Chhatre's Tables, Mr. Sh. B. Dikshit finds that the preceding new-moon *tithi*, which was that of the *Pûrṇimânta* northern Phâlguna, or the *Amânta* southern Mâgha, ended on Monday, the 27th January, A.D. 906; and the fifth *tithi* of the bright fortnight of Phâlguna ended on Saturday, the 1st February, which was the fifth successive civil day. If this date is accepted, then the charter was written nine months after the making of the grant.[14] On the other hand, if the year 585 is here to be taken as current, there should be the same agreement of the lunar *tithi* and the solar day in Saka-Saṁvat 827 current. And, for this year, Mr. Sh. B. Dikshit finds that the preceding new-moon *tithi* ended on Thursday, the 7th February, A.D. 925; and that the fifth *tithi* of the bright fortnight of Phâlguna ended on Tuesday, the 12th February, which was again the fifth successive civil day. If this date is accepted, then the charter was prepared two months before the actual making of the grant.

It may perhaps be argued, hereafter, in opposition to my results for the exact epoch of the era, that all the Gupta-Valabhî dates are recorded in expired years, whether the fact is distinctly stated or not; and, consequently, that it is as an expired year, not current, that the year 165 of the Êran pillar inscription is equivalent to A.D. 484-85 current, and that the year 585 expired, of the present record, is equivalent to A.D. 904-905 current. In that case, the solar eclipse would have to be found in Gupta-Saṁvat 585 + 242 = Śaka-Saṁvat 827 current, somewhere between[15] the 21st March, A. D. 904, and the 9th March, A. D. 905 During this period, there were two eclipses of the sun;[16] on Saturday, the 16th

[10] Of course, as it could only take place at a new-moon conjunction, it did not occur on the given civil day for the writing of the charter.—The limits within which we must look for it, are the first and the last days of Śaka-Saṁvat 828 current, as given in *Indian Eras*, p. 167.

[11] See *Indian Eras*, p. 213.

[12] For his calculations, which are based on the apparent longitudes of the sun and the moon, he has taken the latitude and longitude of Môrbi, which I was not then able to supply to him, as 22° 45′ N. and 70° 51′ E. I now find that, in Thornton's Gazetteer of India, the figures are 22° 49′ N. and 70° 53 E. Mr. Sh. B Dikshit states, however, that the difference will not palpably affect his results.

[13] So also Prof. K. L. Chhatre himself obtained the same eclipse; see Dr. R. G. Bhandarhar's *Early History of the Dekhan*, p. 99, where, with a slight difference of phraseology, the eclipse is given as occurring "on the 30th of Vaiśâkha, Śaka 827." the reference being to the *Amânta* southern month and the expired Śaka year.

[14] There is nothing in the record itself, to indicate whether the writing of the charter preceded, or followed, the making of the grant The Râjim grant of Tîvaradêva, *Corp. Inscr. Indic.* No. 81, page 291, furnishes another similar instance. In that instance, the grant was made on the eleventh *tithi* of Jyeshtha (May-June), while the charter was written, or assigned, on the eighth civil day of Kârttika (October-November); and there is nothing to show specifically whether it was the following, or the preceding, Kârttika. That charter may have been written, or assigned, either five months after, or seven months before, the making of the grant recorded in it.

[15] See *Indian Eras*, p. 167.

[16] *id.* p. 213.

June, A.D. 904, corresponding to the new-moon *tithi* of the *Pûrṇimânta* northern Âshâḍha of Śaka-Saṁvat 827 current; and on Saturday, the 10th November, A.D. 904, corresponding to the new-moon *tithi* of the *Pûrṇimânta* northern Mârgaśirsha of the same Śaka year. In respect of the first of them, Mr. Sh. B. Dikshit finds that it was not visible anywhere in India; but only in the more northern parts of the earth. This, therefore, cannot be the eclipse intended. In respect of the second of them, he finds that it was visible at Môrbî; over more than half the northern part of Kâthiâwâḍ; and, to the south, along the coast, as far as Surat, one hundred and seventy miles south-east of Môrbî, and in the interior, a little further still. And, at Môrbî, the middle of the eclipse was at 11·54 A.M. of the Môrbî mean civil time. At Ahmedâbâd, one hundred and twenty miles east by north from Môrbî, one twelfth of the sun's disc was eclipsed; and, in the more northern parts of India, a considerably greater surface. But, at Môrbî itself, the magnitude of the eclipse was very small; extending there to only one twenty-fifth part of the disc.[17] This eclipse, therefore, setting aside all other considerations, is not in any away as satisfactory as that of the 7th May, A.D. 905.

J. F. FLEET.

A NOTE ON THE LOKAKALA RECKONING.

In the course of his remarks on **the Lôkakâla or popular reckoning by cycles of a hundred years,** in mentioning the "roundabout way" in which the Hindus computed the date (in January, A.D 1026) of the destruction of Sômnâthpâṭan by Mahmûd of Ghaznî, which event took place "in the year of the Hijra 416, or 947 Sakakâla." **Alberûnî** tells us that they first wrote down 242, then 606 under it, and then, again, 99; with the result, by addition of the figures, of Śaka-Saṁvat 947, which, as an expired year, brings us to the period A.D. 1025-26 current, inclusive of the month of January, A.D. 1026.

This passage follows very closely after his account of the Gupta-Valabhî and other eras. And the first figures of this process, which is **manifestly connected directly with the Gupta-Valabhi reckoning,** would seem, at first sight, to indicate that, in this calculation, the epoch of the era was treated as being when Śaka-Saṁvat 242 had expired, which brings us to the period A.D. 320-21.

Alberûnî, in fact, expresses himself as being inclined to think that the number 242 indicates the years which preceded the time when the Hindus commenced to use the cycle of a hundred years, and that they adopted this cycle together with the Gupta era; also that the number 606 represents the completed cycles, *viz.* six, "each of which they must reckon as 101 years;" and that the number 99 gives the expired years of the current cycle. He goes on to say that the rule, as found by him in the writings of **Durlabha of Multân,** was, to write down 848, and add the Lôkakâla; the sum of which would give the Śaka year. But, in proceeding to apply this rule to Śaka-Samvat 953 (expired), as corresponding to the year 400 of the era of Yazdajird,[1] which he had already used as a "gauge-year," he points out that, substracting 848, there remained 105 for the Lôkakâla, while the destruction of Sômnâthpâṭan would fall in the 98th year of the cycle.

There are **subsidiary difficulties** here, which cannot at present be fully cleared up. One of them is, the reference of the destruction of Sômnâthpâṭan to both the ninety-eighth and the ninety-ninth years of a Lôkakâla cycle; with the addition, moreover, that the ninety-eighth year is indicated as current, and the ninety-ninth is inferred to be expired. Another is, that, according to the only Lôkakâla reckoning the nature of which has been fully explained,[2] *viz.* that used in Kaśmîr,—which, Alberûnî tells us, had been adopted by the people of Multân a few years before his own time,—the event in question would fall in the first current year of a cycle.

Thus, Kalhaṇa, in the *Râjataraṁginî*, i. 52 (Calcutta edition, p. 3), makes a very explicit statement regarding the equation between the Śaka era and the Lôkakâla of Kaśmîr. His words are—

> Laukikê=bdê chatur-viṁśê
> Śaka-kâlasya sâmpratam ı
> saptaty=âtyadhikam yâtaṁ
> sahasram parivatsarâh ॥

"At this present moment, in the twenty-fourth *laukika* (or popular) year, there have gone by one thousand years, increased by seventy, of the Śaka era." In this passage, he quotes the Śaka year as expired, in accordance with the practice of astronomers; but the Lôkakâla year as current,

[17] Mr. Sh. B. Dikshit has not made actual calculations for the village of Gôp (see note 9 above): but is able to state that both the eclipses of the 7th May, A.D. 905, and of the 10th November, A.D. 904, were visible there; the circumstances of the former eclipse, in respect of visibility, being more favourable, and those of the latter being less so at Gôp than at Môrbî.

[1] This era dates from the accession of Yazdajird III., a Sassanian king of Persia, in A.D. 632, (see *Prinsep's Essays*, Vol II. Useful Tables, p. 302 and note.) The "gauge-year," 400, selected by Alberûnî for the comparison of dates, is equivalent to A.D. 1031-32, and is one year ahead of that in which he was writing.

[2] By Gen. Sir A. Cunningham, in *Indian Eras*, p. 6 ff.

as would naturally be the case in using a popular reckoning of that kind. He was writing, therefore, in Lôkakâla 24 current, and when Śaka-Saṁvat 1070 had expired; which is equivalent to A.D. 1148-49 current. And this gives Lôkakâla 1 current of the same cycle, as corresponding to Śaka-Saṁvat 1047 expired; which is equivalent to A.D. 1025-26 current.

Now, that the scheme of each year of the **Kasmîrî Lôkakâla cycle** was identical with the scheme of the Śaka years of Northern India, commencing with Chaitra śukla 1, is shewn by Albêrûnî's statements, and by the notes put together by Gen. Sir A. Cunningham in his exposition of this reckoning. And it follows that the first year, current, of each Kaśmîrî Lôkakâla cycle coincides exactly with the forty-seventh year expired, and the forty-eighth current, of each century of the Śaka era, and with part of the twenty-fifth and part of the twenty-sixth years, current, of each century of the Christian era. The month of January, A.D 1026, therefore, fell in Lôkakâla 1 current, of Kaśmîr, which coincided with Śaka-Saṁvat 947 expired, and extended[3] from the 3rd March, A.D. 1025, to the 21st March A D. 1026. And it is difficult to see how, in the application of a Lôkakâla reckoning introduced from Kaśmîr, an event occurring in that month can be correctly referred even to Lôkakâla 99 expired; and, much more so, to Lôkakâla 98 current. To suit the former case, we require a cycle commencing one year later than the Kaśmîrî cycle; and to suit the latter case, a cycle commencing three years later than the same. And, that there were varying starting-points of this kind, as well as a want of uniformity in respect of the scheme of the years, is indicated by Albêrûnî's remark that the totally different accounts of the Lôkakâla reckonings, given to him, rendered him unable to make out the truth about it.

One point, however, seems clear. **As to the number 606**, given by Albêrûnî in his first illustration, it is impossible that a centenary cycle can consist of a hundred and one years. And Albêrûnî himself had previously said distinctly, " if a *centennium* is finished, they drop it, and simply begin to date by a new one." It is plain, in fact, that **the odd six years do not belong to the cycles of the Lôkakâla.** To that reckoning, only the six even centuries belong If we add the odd six years to Śaka-Saṁvat 241 expired, —as representing the epoch of the Gupta-Valabhî era, which really was A D. 319-20 current, and might be quoted either as Śaka-Saṁvat 241 expired or 242 current, - we obtain Śaka-Saṁvat 247 expired, or 248 current, equivalent to A.D. 325-26 current; and this, as we have just seen, would concide with the first current year of a Lôkakâla cycle, as reckoned in Kaśmîr. But it is one year too early for the first current year of any cycle of a reckoning, in a subsequent cycle of which the event in question belonged to the ninety-ninth year expired and the hundredth year current.

Now, I suppose that **we must assume that Albêrûnî has quoted Durlabha correctly.** And, if so, then the first current year of each cycle in the Multân reckoning really was one year later than in the Kaśmîrî reckoning; and coincided with the forty-eighth year expired, and the forty-ninth current, of each century of the Śaka era, and with part of the twenty-sixth and part of the twenty-seventh years, current, of each century of the Christian era. And, if the introduction of the reckoning, at Multân, could be carried back so far, it commenced with Śaka-Saṁvat 248 expired, and 249 current. This year might have been obtained by adding seven to Śaka-Saṁvat 241 expired. But the real use of Śaka-Saṁvat 241 expired is only for obtaining the basis with which Gupta-Valabhî dates have to be calculated; and it only brings us to the beginning of the Gupta epoch. The difference between Gupta-Valabhî and Śaka years, both treated as current for purposes of comparison, is 242 And **Saka-Saṁvat 242 expired brings us to the beginning of the first current Gupta year.** This is the starting-point that was really wanted for a process of the kind shewn to Albêrûni. And this is why that year was selected as the apparent basis of the computation; the true basis being Śaka-Saṁvat 848 expired.

It is evident, therefore, that **the process illustrated by the figures given to Albêrûni does involve a method of adapting the Lôkakâla reckoning to the Gupta era; or, more properly, of converting Lôkakâla dates into Saka dates through the Gupta reckoning.** So far, however, from the figures tending to support any inference that the Lôkakâla *reckoning* was introduced by, or in the time of, the Early Guptas, the fact that Durlabha of Multân would deduct 848, with a remainder, in the particular instance, of 105, or one complete Lôkakâla cycle and five years over, seems to indicate very clearly that **the use of this reckoning in that part of the country commenced with Saka-Saṁvat 848 expired,** equivalent to A D. 926-27 current. Had it been otherwise, Durlabha's rule would surely have been worded in such a way that, in the particular instance, 948 must be deducted, with a remainder of only 5 years over.

J F. FLEET.

[3] See *Indian Eras*, p. 171.

THE EPOCH OF THE KALACHURI OR CHEDI ERA.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

IN the Central Provinces of India there are found a large number of inscriptions, which have reference to the Chêdi rulers of Tripurî, Ratnapur, and other places. A few of them have been edited by Dr. F. E. Hall[1]: a list of the Ratnapur inscriptions was given as early as 1825, by Mr. (afterwards Sir) R. Jenkins;[2] and the contents of most of them have been referred to in the volumes of the *Archæological Survey of India*. Many are dated in years, sometimes called Chêdi-Saṁvat, or Kalachuri-Saṁvatsara, which, on historical and palæographical grounds, cannot be referred to the Vikrama, or to the Śaka era; and it was Dr. Hall who first suggested[3] that they should be referred to an unknown era, the initial point of which must be sought somewhere near the middle of the third century A.D. Afterwards, Sir A. Cunningham[4] stated that the dates of these inscriptions referred "to a period close to A.D. 249 as the initial point of the Kulachuri, or Chêdi-Saṁvat"; and the same scholar subsequently, in his *Indian Eras*, felt satisfied that A.D. 249 = 0, and 250 = 1, is "the true starting-point of the Chêdi era."

Having prepared for publication editions of several of the Ratnapur inscriptions, I have for some time suspected the conclusion, thus arrived at by Sir A. Cunningham, to be slightly erroneous. At present, from an examination of all the years from A.D. 201 to A.D. 280, by means of excellent Tables, which have been constructed by Prof. Jacobi, of Kiel, and placed at my disposal before publication, I am able to state with confidence that the only equation which yields correct weekdays for those Chêdi inscriptions in which the week-day is mentioned, is—

Chêdi-Saṁvat 0 = A.D. 248-49
and
Chêdi-Saṁvat 1 = A.D. 249-50;

and that, if we wish to work out the dates by a *uniform* process, we must take the Chêdi year to commence with the month Bhâdrapada, and must, accordingly, start from July 28, A.D. 249,[5] = Bhâdrapada śu. di. 1 of the northern Vikrama year 307, current, as the first day of the first current year of the Chêdi era.

Starting from these propositions, I have obtained the following results:—

1.—Regarding the date of the Benares copper-plate inscription of Karnadêva, which was first brought to public notice by Wilford, in the *Asiatic Researches*, Vol. IX. page 108, Sir A. Cunningham, in *Archæol. Survey of India*, Vol. IX. page 82, wrote as follows:—"The copper-plates, which were lost for a long time, were re-discovered about 1862, when through the kindness of Mr. Griffith, Principal of the Benares College, I received a carefully made impression of the inscriptions, with a translation by one of the pupils of the College. During my stay in England, I made over to Professor Hall both the impression and the translation, and I have now with me only a few of my own notes to refer to. From these I am able to state that the record was dated in '*Saṁvat* 793 *Phâlguna badi* 9 *S* [illegible]', which were the last words on the plate. *This date was quite distinct, and it was not possible to read the figures* ७९३ *in any other way.*"

[1] *Journal As. Soc. of Bengal*, Vol. XXX. p. 323; XXXI. p. 116; *Journal American Or. Soc.* Vol. VI. p. 499, p. 512.

[2] *Asiatic Researches*, Vol. XV. p. 505.

[3] *Journal American Or. Soc.* Vol. VI. p. 501.

[4] *Archæol. Survey of India*, Vol. IX. p. 112 etc.

[5] The following ten dates give days from the months Âśvina (date No. 4), Kârttika (10), Mârgaśiras (2 and 6), Mâgha (3 and 8), Phâlguna (1), Âshâḍha (5), and Śrâvana (7 and 9) only; and for them, a year beginning with the month Âśvina (but *not* one beginning with Kârttika) would do as well as one beginning with Bhâdrapada, and for the date of the Rêwah copper-plate grant of the *mahârânaka* Kîrttivarman, which will be mentioned below, a year beginning with Âśvina might possibly appear to be even more suitable. But I do not know of any Hindu year having begun with Âśvina; whereas (according to a communication, not connected with the present enquiry, which I have received from Mr. Fleet) Albêrûnî [illegible] a year commencing with the month Bhâdrapada. So much is perfectly certain, that with the epoch A.D. 248-249 the following ten dates work out satisfactorily, and the years mentioned in them may uniformly be taken as [illegible] years, if the first day of the Chêdi era was either July 28, 249 = Bhâdrapada śu. di. 1, or August 26, 249 = Âśvina śu. di. 1, but not with any other initial day of the year. According to von Oppolzer's [illegible] there was a solar eclipse, and consequently a new-moon, on July 27, 249, [illegible] Greenwich time, and there was another solar eclipse, and another new-moon, on August 25, 249 [illegible] Greenwich time. In the same year there was another solar eclipse on March 2 [illegible] Greenwich time, or at [illegible] a.m., which shows [illegible] for the [illegible] of the Vikrama year [illegible] [illegible] *Indian* [illegible] page 145, is wrong by [illegible] days.

It is true that the same scholar, in order to obtain the proper week-day, in his *Indian Eras*, page 61, has come to the conclusion that he may perhaps have misread 793 for 792: but (disregarding the fact that 792 *expired* would [illegible] all be 793 *current*) I believe that any one obliged to choose would certainly accept Sir A. Cunningham's first statement, and reject his subsequent conjecture. And assuming the [illegible] to have really been dated — Saṁvat 793 Phâlguna ba di. 9 Sômê, *i. e.* 'the year 793, the 9th of the dark half of the month Phâlguna, on a **Monday,**' the corresponding date is **Monday, January 18, 1042.** On that day, at sunrise, the 9th *tithi* of the dark half was current, and it ended 17h 9m after mean sunrise. According to von Oppolzer's *Canon der Finsternisse*, there was a lunar eclipse, and consequently a full-moon, on January 9, 1042, [illegible] Greenwich time, or at Laṅka about [illegible]

2.—**A Ratnapur inscription of Jâjalladêva I.** of which a good rubbing has been supplied to me by Dr. Burgess, is dated — Saṁvat 866 Mârga su. di. 9 Ravau, *i. e.* 'the year 866, the 9th of the bright half of the month Mârgaśiras, on a **Sunday.**' The corresponding date is **Sunday, November 8, 1114.** On that day, at sunrise, the 9th *tithi* of the bright half was current, and it ended 19h 54m after mean sunrise. [Calculated by Paul Lehmann's *Tables* [illegible] *phases of the moon*, there was [illegible] new-moon, at Laṅka, on October 30, 1114. [illegible]

[illegible] **The Râjim inscription of Jagapâla,** [illegible] a good rubbing has been supplied to [illegible] Mr. Fleet, is dated — Kulachuri-saṁvat- [illegible] Mâghe mâsi Śukla-pakshe rathâsh- [illegible] Budha[illegible] 'in the Kulachuri [illegible] on the eighth lunar day (called *rathâsh-* [illegible]) of the bright half of the month Mâgha, [illegible] **Wednesday.**' The corresponding date is **Wednesday, January 3, 1145.** On that day, [illegible] the 8th *tithi* of the bright half [illegible], and it ended 16h 49m after mean [illegible] According to von Oppolzer's *Canon* [illegible] was a solar eclipse, and [illegible] on December 26, [illegible] Greenwich time, or at Laṅka, [illegible]

[illegible] **A Sêorinarayan inscription,** according [illegible] R. Jenkins, *Asiatic Researches*, Vol. XV. page 505, is dated 'Saṁvat 898, Ashwin Shudh Saptami': according to *Archæol. Survey of India*, Vol. IX. page 86, 'in the Kulachuri Saṁvat in the year 898, Aswin sudi some': and page 111, '898 Aswina sudi 7, Monday.' A photozincograph in *Archæol. Survey of India*, Vol. XVII. Plate xxii. gives only part of the date, thus: 'Kalachuriḥ saṁmvatsarê 898:' and Sir A. Cunningham, in his *Indian Eras*, page 61, states that '*a fresh examination has shown*' the date to be 'Âśvina su. di. 2' (and not 'Âśvina su. di. 7'). I therefore take the date to be 'Kalachuri-saṁvatsarê 898 Âśvina śu. di. 2 Sômê,' *i. e.* 'in the Kalachuri year 898, the 2nd of the bright half of the month Âśvina, on a **Monday.**' The corresponding date is **Monday, September 9, 1146.** On that day, at sunrise, the 2nd *tithi* of the bright half was current, and it ended 21h 54m after mean sunrise. [Calculated by P. Lehmann's *Tables*, there was a new-moon, at Laṅkâ, about 2 hours before sunrise of September 8, *i. e.* on September 7, 1146].

5.—**A Têwâr inscription,** according to Sir A. Cunningham, *Archæol. Survey of India*, Vol. IX. page 111, and *Indian Eras*, page 61, is dated — 902, Âshâḍha su. di. 1, **Sunday**, a statement about which I am somewhat doubtful, and which, at any rate, I am unable to verify. Supposing it to be correct, the corresponding date would be **Sunday, June 17, 1151.** On that day, at sunrise, the first *tithi* of the bright half was current, and it ended 2h after mean sunrise. [Calculated by P. Lehmann's *Tables*, there was a new-moon, at Laṅkâ, shortly before noon on June 16, 1151].

6.—**The Bhêra-Ghâṭ inscription of Alhaṇadêvi,** which has been edited by Dr. F. E. Hall, in the *Journal American Or. Soc.*, Vol. VI. page 499, and of which we have a photozincograph in *Archæol. Survey of Western India*, No. X. page 107, according to the published version, is dated—Saṁvat 907, Mârga su. di 11 Ravau, *i. e.* 'the year 907, the 11th of the bright half of the month Mârgaśiras, on a **Sunday.**' This reading of the date I have hitherto taken to be correct. At present, however, I strongly incline to accept the suggestion of Mr. Fleet, based upon a more careful examination of the lithograph than I had given to it, that the number of the day is 10, and either that the engraver first formed 11, and

corrected it into 10, or that, in forming the 0, his tool slipped, and thus gave to the 0 a partial appearance of 1. And taking the day to be the 10th, I find that the corresponding date is **Sunday, November 6, 1155.** On that day, at sunrise, the 10th *tithi* of the bright half was current, and it ended 2h 8m after mean sunrise. Should the number of the day on an examination of the stone itself, which is now in America, after all, prove to be **11**, the year 907 would have to be regarded as an expired year, and the corresponding date would then be **Sunday, November 25, 1156.** On that day, at sunrise, the 11*th tithi* of the bright half was current, and it ended 1h 54m after mean sunrise. [According to von Oppolzer's *Canon der Finsternisse* there was a solar eclipse, and consequently, a new-moon, on November 26 (*i.e.* 20 days after November 6), 1155, 11h 22m Greenwich time, or at Laṅkâ, about 5 P. M. And there was another solar eclipse, and consequently, a new-moon, on November 14, 1156, 22h 32m Greenwich time, or, at Laṅkâ, 3h 35m A. M. of November 15, *i.e.* on November 14].

7.—The Lâl-Pahâr rock inscription of Narasiṁhadêva, according to the rough photozincograph published in the *Archæol. Survey of India*, Vol. IX. Plate ii. is dated — Saṁvat 909 Śrâvaṇa su. di. 5 Budhê, *i.e.* 'the year 909, the 5th of the bright half of the month Śrâvaṇa, on a **Wednesday.'** The corresponding date is **Wednesday, July 2, 1158.** On that day, at sunrise, the 5th *tithi* of the bright half was current, and it ended 16h 26m after mean sunrise. In A.D. 1158 the solar month Śrâvaṇa lasted from about sunset of June 26 to about sunrise of July 28, and it contained two new-moons, one on June 27, 19h 8m after sunrise, and the other on July 27, 4h 53m after sunrise. The year therefore contained two lunar months Śrâvaṇa, and July 2 was śu. di. 5 of the *adhika* Śrâvaṇa; śu. di. 5 of the *nija* Śrâvaṇa would have been Friday, August 1. [Calculated by P. Lehmann's *Tables*, there was a new-moon, at Laṅkâ, shortly after midnight on June 28, *i.e.*, on June 27, 1158].

8.—According to Sir A. Cunningham, *Archæol. Survey of India*, Vol. IX, page 111, and *Indian Eras*, page 61, **a Bhêra-Ghât inscription** is dated '928 Magha ba. di. 10, **Monday**.' I confess that I have no means whatever of verifying this statement, but supposing it to be correct, the corresponding date would be **Monday, December 27, 1176.** On that day, at sunrise, the 10th *tithi* of the dark half was current, and it ended 13h 40m after mean sunrise. [Calculated by P. Lehmann's *Tables*, there was a full-moon, at Bhêra-Ghât, about 2 A.M. of December 18, *i.e.* on December 17, 1176].

9.—The Têwâr inscription of Jayasiṁhadêva, which has been edited by Dr. F. E. Hall, in the *Journal American Or. Soc.*, Vol. VI. page 512, and of which we have a rough photozincograph in *Archæol. Survey of Western India*, No. X. page 110, is dated — Saṁvat 928 Śrâvaṇa su. di. 6 Ravau Hastê, *i.e.* 'the year 928, the 6th of the bright half of the month Śrâvaṇa, on a **Sunday, the moon being in the asterism Hasta.'** The corresponding date is **Sunday, July 3, 1177.** On that day, at sunrise, the 6th *tithi* of the bright half was current, and it ended 7h 39m after mean sunrise. In A.D. 1177 the solar month Śrâvaṇa lasted from about 2h before sunrise of June 27 to about 3h before sunset of July 28, and it contained two new-moons, one on June 27, 18h 34m after sunrise, and the other on July 27, 1h 51m after sunrise. This year too, therefore, contained two lunar months Śrâvaṇa, and July 3 was śu. di. 6 of the *adhika* Śrâvaṇa, and **on that day the moon was in the asterism Hasta.** Śu. di. 6 of the *nija* Śrâvaṇa would have been Monday, August 1, when the moon was (not in Hasta, but) in Jyêshṭhâ. [Calculated by P. Lehmann's *Tables*, there was a new-moon, at Laṅkâ, about 1 A.M. on June 28, *i.e.* on June 27, 1177].

10.—A Sahaspur inscription, according to the photozincograph published in *Archæological Survey of India*, Vol. XVII, Plate xxii. is dated — Saṁvat 934 Kârttika su. di. 15 Budhê, *i.e.* 'the year 934, the 15th of the bright half of the month Kârttika, on a **Wednesday.'** The corresponding date is **Wednesday, October 13, 1182.** On that day, at sunrise, the 15th *tithi* of the bright half was current, and it ended 13h 57m after mean sunrise. [Calculated by P. Lehmann's *Tables*, there was a full-moon, at Laṅkâ, on October 13, 1182, in the evening].

To the dates given under 5 and 8, I at present attach, for the reasons stated, very little value. Of the other dates, two have been

taken from good impressions, four from photo-zincographs, and for the remaining two we have the somewhat emphatic statements of Sir A. Cunningham, the correctness of which I see no reason to doubt. And, if my calculations be at all correct, it is a fact, that **of all the years from A.D. 201 to 280, only the year 248-49, taken as the epoch of the Chêdi era, yields correct week-days for every one of these eight dates, and at the same time places the moon in the asterism mentioned in one of these dates.** Whether there are *historical* reasons for which the epoch of the Chêdi era should be placed *before* A.D. 201 or *after* A.D. 280, others will be more competent to say than I am; but I may mention one or two facts, which render either alternative extremely improbable, I may say, impossible.

From an Alha-Ghâṭ inscription, of which we have a photolithograph in *Archæol. Survey of India*, Vol. XXI. Plate xxviii. **we learn that Narasiṁhadêva was reigning in [Vikrama-] Saṁvat 1216 = A.D. 1159.**[6] The same Narasiṁhadêva (together with his younger brother Jayasiṁhadêva) is mentioned, as reigning prince, in Alhaṇadêvî's inscription of [Chêdi-]Saṁvat 907. Supposing, then, the Chêdi era to have commenced, *e.g.*, in or before A.D. 200, Narasiṁhadêva would have reigned in or before A.D. 907 + 200 = 1107, *i.e.* already at least 52 years before A.D. 1159, the year in which we know him to have reigned.

Again, **from the Rêwah copperplate inscription** of the *mahârâṇaka* Salakhaṇavarmadêva which is mentioned in *Archæol. Survey of India*, Vol. XXI. page 146, and of which I owe an impression to Mr. Fleet, **we know that Vijayadêva was reigning in [Vikrama-] Saṁvat 1253 = A.D. 1195.**[7] **And from a Têwâr inscription we learn that his father, Jayasiṁhadêva, was reigning in [Chêdi]-Saṁvat 928.** If, then, the Chêdi era had commenced as late as, *e.g.* A.D. 270, not to mention A.D. 280, Jayasiṁhadêva would have reigned in or after A.D. 928 + 270 = 1198, *i.e.* at least three years *after* his own son, which clearly is impossible. On the other hand, starting from A.D. 248-49, we obtain for the three princes mentioned the following dates, which may speak for themselves:—

Narasiṁhadêva,—

Chêdi-s.[8] 907 + 248 = A.D. 1155.
Chêdi-s.[9] 909 + 248 = A.D. 1157.
Vikrama-s.[10] 1216 — 57 = A.D. 1159.

His younger brother Jayasiṁhadêva,—

Chêdi-s.[11] 926 + 248 = A.D. 1174.
Chêdi-s.[12] 928 + 248 = A.D. 1176.

His son Vijayasiṁhadêva,—

Chêdi-s.[13] 932 + 248 = A.D. 1180.
Vikrama-s.[14] 1253 — 58 = A.D. 1195.

Narasiṁhadêva's father and predecessor was Gayakarṇadêva. That prince issued **the Jabalpur copper-plate grant,** of which one plate, containing the date, unfortunately has now been lost, but regarding the contents of which we know from a transcript[15] that Gayakarṇa made a grant of a certain village, "having bathed in the Narmadâ **at the time of the Makara-saṁkrânti, on Monday, the 10th of the waning moon of Mâgha** in the year * * *." Supposing Narasiṁhadêva to have reigned in 907 + 248, *i.e.* as I have shown above, A.D. 1155, the Makara-saṁkrânti must have taken place on a Monday, the 10th of the waning moon of Mâgha, in some year before, but at such a distance from A.D. 1155, as would suit the relation to each other of father and son. And it is again a fact that the year, which fulfils these conditions, is **A.D. 1122.** For in that year, the tenth of the waning moon of Mâgha, by the northern reckoning, fell on **December 25, which was a Monday,** and in the same year **the Makara-saṁkrânti took place shortly before sunrise of, or, for practical purposes, on Monday, December 25,** as required. I may add that on that day the 10th *tithi* of the dark half was current, and that it ended 9h 13m after mean sunrise.

In *Archæol. Survey of India*, Vol. XXI Plate xxvii. Sir A. Cunningham has given a photolithograph of **an inscription from Bêsâni,** the date of which he reads "Saṁvat 958 prathama Ashâdha su. di. 3," and from the

[6] Saṁvat 1216 Bhâdra su. di. pratipadâ Ravau = Sunday, August 16, 1159.
[7] The exact date I shall give, when editing the inscription.
[8] Alhaṇadêvî's inscription.
[9] Lâl-Pahâr rock inscription.
[10] Alha-Ghâṭ inscription.
[11] Rêwah copperplate inscription, *Archæol. Survey of India* Vol. XXI. p. 145.
[12] Têwar inscription.
[13] Kumbhî copperplate inscription, *Journ. As. Soc. of Bengal*, Vol. XXXI. p. 116.
[14] Rêwah copperplate inscription *Archæol. Survey of India* Vol. XXI. p. 146.
[15] *Archæol. Survey of India*, Vol. IX. p. [illegible]

characters of which he concludes that the era used must be that of Kalachuri or Chêdi. The meaning of the date is 'the year 958, the third of the bright half of *the first* month Âshâḍha,' which shows that **in the year mentioned Âshâḍha was an intercalary month.** If I am right in assuming that the Chêdi era began about July-August A.D. 249, the month Âshâḍha must have been intercalary about June, A.D. 1207. And **Âshâḍha was intercalary in A.D. 1207.** For in that year the solar month Âshâḍha lasted from May 26, about 1h 40m after sunset, to June 27, about 4h after sunrise, and during that time there were two new-moons, one on May 28, 9h 30m after mean sunrise, and the other on June 26, 23h 41m after mean sunrise.

The Rêwah copper-plate inscription of the *mahârâṇaka* Kîrtivarman, which is mentioned in *Archæol. Survey of India*, Vol. XXI. page 145, and of which I owe an impression to Mr. Fleet, is dated — saṁvat 926 Bhâdrapada-mâsê śukla-pakshê chaturthyâṁ tithau Gurudinê, *i.e.* 'the year 926, in the month Bhâdrapada, in the bright half, on the fourth *tithi*, on Gurudina or **Thursday.**' Judging from the style of the letters, and from the fact that the paramount sovereign of the grantor was the lord of Trikaliṅga, **Jayasiṁhadêva,** whom from a Têwâr inscription mentioned above we know to have reigned in Chêdi-Saṁvat 928, this date is clearly to be referred to the Chêdi era. With the epoch A.D. 248-49, and a year commencing with any of the six months from Chaitra to Bhâdrapada, the corresponding date must belong to A.D. 1174, or, if by chance the year 926 should be the year expired, to A.D. 1175. In 1174 the fourth *tithi* of the bright half of Bhâdrapada ended 17h 9m after mean sunrise of August 3, which was a Saturday, and therefore evidently not the day intended. And in 1175 the same fourth *tithi* commenced 8h 9m after mean sunrise of **Thursday**, August 21, and ended 10h 4m after mean sunrise of Friday, August 22. Looking to the wording of the date, I see no reason why the grant should not have been made during that portion of **Thursday, August 21, 1175,** when the fourth *tithi* was current: on the contrary, the *tithi* in question being the *Gaṇêśa-chaturthî*, the religious ceremonies and the gifts to Brâhmaṇs connected with them, certainly ought, so far as I know, since the *tithi* commenced about 8 hours after sunrise, to have been performed on the Thursday, although civilly that day was the *third* of the bright half of Bhâdrapada.[16] I therefore regard the result as satisfactory;[17] and will only add, that the same result for the commencement of the *tithi*, Thursday, August 21, 1175, would be obtained, with the epoch A.D. 248-49, for the Chêdi year 926 *current*, if there were any authority for making the year begin with the month Âśvina. (See note 5 above.)

Three other inscriptions, the dates of which have been referred to the Chêdi era (whether rightly or wrongly, I must leave it to others to decide), are mentioned *ante*, Vol. XIII. page 77.

Of these, **the Ilâô grant,** which has been edited by Mr. Fleet, *ib.* page 115, is dated — Śaka-nṛipa-kâl-âtîta-saṁvatsara-śata-chatushṭayê saptadaś-âdhikê Jyêshṭh-âmâvâsyâ-sûryagrâhê, *i.e.* according to Mr. Fleet's translation, 'in (*the year*) four hundred, increased by seventeen, of the centuries of years that have elapsed from the time of the Saka king, at (*the time of*) **an eclipse of the sun** on the new-moon day of

[16] An exactly similar date, recorded in the Nêwâr era, about the epoch of which, as I shall have occasion to show in a future paper, there can be no doubt whatever, we have *ante*, Vol. IX. pp. 183-185. The wording of it is — *Saṁvat 757 Phâlguna-mâsê śukla-pakshê* [illegible] *Âyushmân-yôgê* [illegible], *i.e.* 'the year 757, in the month Phâlguna in the bright half, on the tenth *tithi*, (the moon being) first in the *nakshatra* Ârdrâ and afterwards in Punarvasu, in the *yôga* Âyushmat, on a Thursday'; and the corresponding date, undoubtedly is Thursday, March February 23, A.D. 1637. On that day, at sunrise, the moon was in Ârdrâ, and later in the day it was in Punarvasu, and the current *yôga* was Âyushmat. Civilly, Thursday, February 23, was the 9th of the bright half of Phâlguna; but the day is nevertheless, the right day and the wording of the date is literally correct, because the ninth *tithi* ended, and the tenth *tithi* began, 5h 49m after mean sunrise. The religious ceremonies, to which the date refers, evidently were performed in that part of Thursday, Phâlguna śu. di. 9, during which the tenth *tithi* was current.

[17] The rule on this point, given to me by Mr. Sh. B. Dikshit, is, that the worship of Gaṇêśa on the *Gaṇêśa-chaturthî*, and any ceremony connected with it, must be performed on that civil day on which there actually is the *chaturthî* or fourth *tithi* at noon. In the present instance, this was the case on the Thursday. And, if the grant was made specially to celebrate the *Gaṇêśa-chaturthî*, it must have been made on the Thursday, and so the *chaturthî* as a current *tithi*, would for this purpose be properly coupled with the Thursday, though, in the almanac, it would be coupled in the ordinary manner, as an expired *tithi*, with the Friday. There ought to be an indication of the circumstances, in the record. And this may be found in the opening verse, which is an invocation of Gaṇêśa under the names of Heramba and Gaṇanâyaka. —J.F.F.]

(*the month*) Jyêshṭha.' Assuming, for reasons which it is unnecessary to mention here, the date to have been recorded in the Chêdi era, and taking that era to commence, as we have done hitherto, about July-August A D. 249, the year corresponding to the Chêdi year 417 *expired*, would be **A.D. 667.** In that year, the new-moon day of the month Jyaishṭha fell on **April 29,** and on that day **there was no solar eclipse ; nor was there one in April or May of the preceding year A.D. 666.**[15] On the other hand, taking the date to be recorded, as stated in the grant itself, in the **Saka era,** the corresponding date is **May 10, A.D. 495** and on that day **there was a solar eclipse** 10h 39m Greenwich time.

The Nausârî grant, which has been edited by the late Dr Bhagvanlal Indraji, *ib.* page 70, is dated — 456 (expressed both in numerical symbols and in words), Mâgha-śuddha-pañchadaśyâṁ chandr-ôparâgê, *i.e.* 'on the 15th lunar day of the bright half of the month Mâgha, **on the occasion of an eclipse of the moon,**' on a day of the week which, owing to the damaged state of the plate cannot now be given with any certainty. Assuming the date to have been recorded in the Chêdi era, and taking that era to commence about July-August A D. 249, the corresponding date must be either Wednesday, January 14, 705, or **Tuesday, February 2, 706,** according as the figure 456 denotes the current year or the number of years expired. According to von Oppolzer's *Canon der Finsternisse* there was no lunar eclipse on January 14, 705, but **there was one on February 2, 706,** 16h 37m Greenwich time or at Laṅkâ, 9h 40m P.M.

For the date of **the Kâvî grant,** which has been edited by Dr. Buhler, *ante,* Vol. V. page 109, and of which I owe a photograph to Dr. Buhler and an impression to Mr. Fleet, we have two data, one in lines 15 and 16, and the other in lines 24 and 25, of which the latter, unfortunately, owing to the state of the plate, is not absolutely certain. In lines 15 and 16 we read

L. 15 . . . . Âshâḍha-śud[dh]a-daśam[yâm ?]

L. 16 Karkkaṭaka-r[â*]śau sa[ṁ]krânt[ê ?] ravau puṇya-tithau . . . . *i e.,* 'on the tenth [lunar day] of the bright half of (*the month*) Âshâḍha, the sun having entered into the zodiacal sign of Cancer, on (*this*) auspicious *tithi*' *i. e.,* as I take it, after consultation with Dr. Bühler, **on the occasion of the sun's entering the sign of Cancer, or on the Karkaṭa-saṁkrânti.** In lines 24 and 25, of which the former is incomplete at the end and the latter at the beginning, we read—

L. 24 . . . . . . sa[ṁ]vatsara-śata-chatushṭayê [sha ?] x x x x x

L. 25 x x x x [sa ?]ṁ 400. 80. 6. Âshâḍha śu [10 ?] Âdityavârê || . . . . . .

The *sha* at the end of line 24 is distinctly visible, but there are certain marks below it, both in the impression and, more clearly still, in the photograph, which would render it possible to read the whole akshara *shṭa, i. e.* to regard it as the beginning of the word '*shṭâśîti* (88), not of *shaḍaśîti* (86), were it not that in the following line the numerical symbol for the unit is distinctly 6, and not the similar symbol for 8. In line 25 the numerical symbol following upon *śu* is decidedly indistinct. What is clearly seen, both in the impression and in the photograph, is the symbol for 10, as it occurs, *e. g.* at the end of the Valabhî grant of Dharasêna II., *ante,* Vol. VIII. page 303, *minus* the curved line on the right; but there are indications that that curved line had been engraved and that therefore 10 was intended. It is more difficult to say, whether certain marks after the symbol for 10 are accidental scratches or intended to denote the unit 1 or 2. Here the actual mention of the tenth in line 15 is a *primâ facie* argument in favour of the former and against the latter alternative.

In all probability, then, the grant is dated—486, on the 10th lunar day of the bright half of the month Âshâḍha, **on a Sunday, on the occasion of the sun's entering into the zodiacal sign of Cancer.** But there is just the possibility, that the grant was *made* on the occasion of the Karkaṭa-saṁkrânti, on the 10th *tithi* of the bright half of Âshâḍha, and *recorded* on a Sunday, the 11th or 12th of the bright half of Âshaḍha. Under any circumstances the

[15] In A D. 666 there were two solar eclipses, one on March 11, and the other on September 4; and in A D 667 there were also two solar eclipses, one on February 28, and the other on August 25. In A.D 665 there was a solar eclipse on the new-moon day of the *nija* Jyaishṭha, which was April 21.

date, if falling within the 8th century A.D., must, generally speaking, fall on or after June 22, the approximate day of the Karkaṭa-saṁkrânti.

Supposing the date to be recorded in the Chêdi era, and taking that era to commence on July 28 (or, possibly, on August 26), A.D., 249 the corresponding year would be either A.D. 735 or 736, according as the figure 486 denotes the current year or the number of years expired. In A.D. 735 the Karkaṭa-saṁkrânti took place on Thursday, June 23, which was the 13th of the dark half of a month, while the 10th of the bright half of Âshâḍha had fallen already on Sunday, June 5, *i.e.* no less than eighteen days *before* the Saṁkrânti. Neither of the two days can be the day intended.

In A.D. 736, on the other hand, the Karkaṭa-saṁkrânti took place about 8 hours after sunrise of June 22; and the tenth *tithi* of the bright half of Âshâḍha began 21 minutes *after* mean sunrise of June 22, and ended 1h 21m *before* mean sunrise of June 23. The *tithi* therefore, in all probability, was a *kshaya-tithi*, but, under any circumstances, **the Karkaṭa-saṁkrânti, in A.D. 736, did take place during the tenth tithi of the bright half of Âshâḍha**. June 22, however, was a Friday, not a Sunday; and the nearest **Sunday, June 24, was the 12th of the bright half of Âshâḍha,** because the 12th *tithi* of the bright half ended on it, 20h 37m after mean sunrise.

Now, taking into consideration that in the whole century from A.D. 676 to 775, there is not a single year in which the Karkaṭa-saṁkranti fell on any Sunday which was the tenth of the bright half of Âshâḍha or of any other month, I believe that, if the date must really be referred to the Chêdi era, we have to resort to the other possible interpretation of the date which I have spoken of. And assuming the grant to have been *made* on the occasion of the Karkaṭa-saṁkrânti, on the tenth *tithi* of the bright half of Âshâḍha, and *recorded* on a Sunday, the 12th of the bright half of the same month, **June 22 and Sunday, June 24, A.D. 736, satisfy the requirements of the case**; and if the tenth *tithi* was a *kshaya-tithi*, which I have good grounds for believing that it was, the reason why the grant should have been *made* and *recorded* on different days, is perhaps not far to seek.

Regarding **the Chêdi year,** I may finally state that the calculation of the only two available dates in dark fortnights, *viz.* that of the Benares copper-plate inscription of Karṇadêva (above, No. 1), and that of the Bhêra-Ghât inscription of the year 928 (above, No. 8, to which however I can attach only little importance), shows the Chêdi year to have been **a northern year,** with the regular *pûrṇimânta* northern arrangement of the months. This is also proved (as was first remarked to me by Mr. Fleet on Mr. Sh. B. Dikshit's authority), by the record in the Jabalpur grant of Gayakarṇadêva, mentioned above, of the occurrence of the Makara-saṁkrânti in the *dark* fortnight of Mâgha. For, since the first day of the solar month Mâgha must precede the first day of the bright half of the lunar Mâgha, the Makara-saṁkranti, which introduces the solar Mâgha, may well take place in the dark half of the lunar Mâgha when the latter, as is the case in the *northern* year, precedes the light half; but it cannot do so in the southern year where the dark half of the lunar Mâgha *follows* upon the light half of the same month.

In conclusion, I have to thank my friend Professor Jacobi for having allowed me the use, before actual publication, of his Tables, by the construction of which he has rendered a service of the utmost importance to all who take an interest in Indian inscriptions.

STORY OF THE MURDER OF 'ALI 'ADIL SHAH I., FIFTH KING OF BIJAPUR, AS TOLD BY CONTEMPORARY HISTORIANS.

BY CAPTAIN J. S. KING, Bo.S.C.

No detailed account of the death of **'Alî 'Âdil Shâh I.** has yet been published in English. In the Bijâpur volume of the *Bombay Gazetteer*[1] this event is disposed of in the following words:—"In 1580 'Alî was assassinated in a brawl with one of his servants."

Farishta[2] gives the following account of it:—"In the year 987 (A.D. 1579-80), as the

[1] Vol. XXIII p. 419.

[2] Briggs, ed. Vol. III. p. 142 n.

king had no son, he appointed his nephew Ibrâhîm, son of his brother Shâh Tahmâsp, his successor, and the following year he was assassinated by a eunuch, whom he had forced against his inclination to come to his Court from Aḥmadâbâd Bidar."

Briggs,[3] in a note on this passage, says:—"A more detailed account of this transaction is given by Farishta in the *History of the Kings of Bidar*. He evidently avoids the subject in this place, in order not to give offence to Ibrâhîm 'Âdil Shâh II., the nephew of 'Alî Âdil Shâh, under whose patronage he wrote. The cause of the king's death is most disgusting and offensive, and it is by no means attempted to be palliated by Farishta when he mentions it. A modern author of the history of Bîjâpur, however, has set forth reasons in defence of Alî 'Âdil Shâh's conduct, and endeavours to prove that Farishta has traduced his memory."

Farishta's "more detailed account" above referred to, is thus translated by Briggs[4]:—

"In the year 987 (A.D. 1579), Murtazâ Nizâm Shâh made an attack upon the remaining part of the Bidar territories, and laid close siege to the capital itself. 'Alî Barîd, thus straitened, sent an envoy to 'Alî 'Âdil Shâh, who replied that if he would make him a present of two eunuchs, whom he named, he would send him assistance. 'Alî Barîd assented; and two thousand Bîjâpur Cavalry marched to raise the siege of Muḥammadâbâd Bidar.[5]

"Murtazâ Nizâm Shâh, hearing of the approach of the 'Âdil Shâhis, and also of the rebellion of his brother, Burhân Nizâm Shâh, at Aḥmadnagar, retreated to his capital, and left Mîrzâ Yâdgâr with a body of Qutb Shâhîs, who had joined from Gulkunda, to prosecute the siege; but as soon as the Bîjâpur detachment arrived within a few miles of the place, Mîrzâ Yâdgâr retreated, and 'Alî Barîd delivered over the two eunuchs, contrary to their own inclination, to the Bîjâpurîs. These two youths were so stung with shame on being transferred from one king to another, that shortly after their arrival at Bîjâpur, one of them put 'Alî 'Âdil Shah to death, as we have before seen in this history."

Khâfî Khân, who enjoys the reputation of being the most impartial of Indian historians, gives the following account of the murder of 'Alî 'Âdil Shâh[6]:—

"In the year 987 (A.D. 1579-80) he nominated his nephew, Muḥammad Ibrâhîm, son of his brother, Shâh Tahmâsp, as his successor, and gave him full power, whilst he gave himself up to sensual enjoyments.

"When it came to his ears that 'Alî Barîd had two handsome eunuchs, one of whom in beauty, and the other in delicacy, was a reproach to the sun and the moon, he conceived an intense longing to become possessed of them, and, accordingly, sent a message (to 'Alî Barîd) asking for them. 'Alî Barîd at first was firm in refusing; but afterwards, on account of his excessive entreaty, he sent them both to 'Alî 'Âdil Shâh. Each of these eunuchs knew why he had been sent for; and the elder one, who had a hankering after evil, concealed a knife in the waist-band of his drawers, and awaited the opportunity for the infliction of punishment.

"At last, one night, 'Alî 'Âdil Shâh summoned him into his private apartment, and endeavoured to lie with him. The eunuch, on getting the opportunity, plunged that knife into his hypochondria with such force as to put a stop to all sensual desire; and in the year 988 (A.D. 1580) 'Alî 'Adil Shah hurried from this world to his permanent abode; and, in retribution for the crime of one, the two eunuchs were put to death."

The next account of this occurrence I extract from a very rare Persian MS. history of the 'Âdil Shâhî dynasty of Bîjâpur, entitled **Basâtînu's-Salâtîn**, by Muḥammad Ibrâhîm az-Zubairî, completed, as the author himself informs us, in A. H. 1240 (A.D. 1824). General Briggs published his translation of Farishta in 1829. From these dates, and from the fact that the copy of this MS. now in the Royal Asiatic Society's Library belonged to General Briggs, I conclude that this is the history to which he alludes in his footnote already quoted; but before making any further remark on the subject, I shall proceed to translate the passage:—

"'Alî 'Âdil Shâh's twin sister (*ham-shîra*), named Tânîbâî Sultân, had been married to

[3] Vol. III. p. 142n. [4] Vol. III. p. 498.

[5] So in Briggs' text, but the more usual appellation is Aḥmadâbâd Bidar, as above.

[6] *Muntakhabu'l Lubâb.*

'Alî Barîd; and having died without issue, her movable property, consisting of valuable jewellery and other goods, remained in 'Alî Barîd's house; and as by Muhammadan law it was allowable for 'Alî 'Âdil Shâh to demand restitution of these, he at once sent a messenger to ask for them. 'Alî Barîd returned all the effects except the jewellery, the claim for which still remained unsettled, till, in the year 988 (A.D. 1580), Kâmil Khâñ renewed it, and petitioned 'Âdil Shâh, saying:—'There is an old-standing connection between me and Barîd; with your permission I will send a person on my account and recover the goods.' 'Âdil Shâh replied:—'I have a large claim against him, and can claim it by law.' Kâmil Khâñ, considering this as equivalent to permission, brought General 'Alî Âqâ into the presence of the king, and after giving him the necessary instructions, despatched him to Bidar.

"'Ali Âqâ returned after four months, and presented to the king a portion of the jewellery, together with two eunuch slaves who had formerly been in the service of 'Alî 'Âdil Shâh's twin sister, above mentioned.

"One night 'Âdil Shâh summoned to his private apartments one of those eunuchs, who was more intelligent than the other, in order that he might make inquiries about his sister's jewellery. This eunuch was of an evil disposition, for as soon as he came into the presence of the king, although there were two or three servants standing by, he plunged a dagger up to the hilt in the king's breast, so that it came out at his back. The king, wounded as he was, arose from the chamber, and reached the courtyard, where he fell, and those who were near raised a clamour."

Rafî'u'd-dîn Shîrâzî,[7] who held the appointments of Havâldâr-i-Maḥallât, Khâñ-Sâlâr and Treasurer, says:—

"I was present outside the palace at that time, as also was Afzal Khâñ, who had been sitting there with some people transacting business. At that moment they had just got up to go to their houses; but he had not quite reached the gate of the fort when a shouting and clamour arose. On going inside I found the king lying bathed in blood. Afzal Khâñ came running back, and, after looking at the king and feeling his pulse, cried out:—'Alas! Dust is on our heads!' Then, raising the king, we laid him on a couch, and went outside. The murderer had remained in the private apartment, and some one wished to enter it and bring him to punishment, but he had fastened the door on himself. However, next day he received the punishment due, and the other eunuch was put to death by the slaves on the same day.

"The people of the city, hearing of the death of the king, rushed in crowds to the gate of the fort that night. The nobles, grandees and *amîrs* also, both superior and inferior, assembled at the gate, but did not obtain admission.

"After morning prayers, some one came to the gate and cried out:—'All the Ministers and nobles are assembled at the gate, and, with compliments, send this message to the prime minister, Afzal Khâñ:—'We have passed the whole night here, like fish without water, in disquietude and anxiety, and we are all anxious to know from you what arrangements have been made for carrying on the government.' Afzal Khâñ replied:—'I await the good pleasure of my colleagues; whatever they advise, and whomsoever they may confirm in the sovereignty, they are free to do as they please.' The nobles, on hearing this, held council, and confirmed with oaths the promises as to the hereditary succession. They then sent Mîr Murtazâ Khân Ânjû, who went near the gate, and proclaimed the decision of the council, saying:—'Shâh Kamâlu'd-dîn Fatḥ-u'llah, being *vakîl* on your part, with the approval of all the nobles has agreed that we shall confirm in the sovereignty the king's nephew, Prince Ibrâhîm, who is the rightful heir, and whom the king during his lifetime appointed and educated as such. Also that you shall be Prime Minister, as formerly; and the other offices be filled by whomsoever you may please.' Afzal Khâñ replied:—'I cannot undertake this important affair; appoint some-one else.' Murtazâ Khâñ said:—'At all events, you and the nobles can assemble in council, and whatever you determine upon will be confirmed.' Afzal Khâñ said:—'A great crowd is assembled here, and if we open the gate there will be a rush of the common people, and

[7] *Tazkiratu'l-Mulûk*

perhaps a disturbance may arise. The best plan is for you with only three or four selected persons to come inside.'

"Then Shah Kamâlu'd-dîn Fathu'llah, Kamâl Khân, Murtazâ Khân and Manjan Khân, youngest son of Kishwâr Khân, and son-in-law of Kamâl Khân, went inside, and, after taking counsel together, went to the door of the *haram*, and, bringing forth Ibrâhîm 'Âdil Shâh, took him to the summit of a tower; and, seating him with much more ceremony, raised over his head the gold-embroidered umbrella."

According to **Mirzâ Rafi'u'd-dîn Shîrâzî**, author of the *Tazkirâtu'l-Mulûk* (who was an eye-witness of the occurrence), 'Alî 'Âdil Shâh I. was murdered on Monday, the 24th of the month Safar, A. H. 988, at the eighth hour of the night, which corresponds to 2 a. m. on the 19th March 1580.

The above detailed account of what followed immediately after the murder is interesting, and probably true in every particular; but in relating the circumstances which led to the murder, Rafi'u'd-dîn seems to me to have failed to remove the stigma cast on the memory of 'Alî 'Âdil Shâh I. by Farishta and Khâfi Khân.

FOUR REWAH COPPER-PLATE INSCRIPTIONS.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

In the *Archæol. Survey of India*, Vol. XXI. pp. 145-148, Sir A. Cunningham has given an account of four copper-plate inscriptions from **Rêwah** (properly **Rîwâṁ** or **Rîmâṁ**) in Central India. At Mr. Fleet's request, I shall edit here three of those inscriptions, and give extracts of whatever may be important in the fourth, from excellent impressions supplied by him. In a concluding paragraph I shall furnish, from the four inscriptions together, a genealogical list of the *Mahârâṇakas* of **Kakkarêdikâ (Kakarêḍikâ, or Kakarêḍî)**, the chiefs by whom the donations recorded in these copper-plates were made. Following Sir A. Cunningham, I denote the four inscriptions by the letters A., B., C., and D.[1]

A.—Copper-Plate Grant of the Mahârâṇaka Kîrtivarman. The (Chêdi) year 926.

This inscription is on a **single plate**, measuring about 13" by 9¾", and inscribed on one side only. The surface of the plate itself is smooth; but, for the protection of the writing, strips of copper about ⅜" broad are fastened by rivets along the edge of the top and the two sides; and the bottom edge was originally protected in the same **way**, but the strips here have been torn off and lost. The preservation of the inscription is perfect, and there is hardly any letter which is not clear and distinct in the impression.—In the upper part of the plate, and secured by a strong rivet passing through the plate, there is a thicker and broader strip of copper, which, towards the end projecting above the plate, is turned over so as to catch and hold a plain copper **ring** about ⅝" thick and 2½" in diameter. There are no indications of any seal having been attached to the ring.—The **weight** of the plate, with the ring, is 164½ tolas.—The average **size of the letters** is between ¼" and ⅓".—The **characters** are Dêvanâgarî of about the 12th century A.D. The formation of the letters betrays some want of skill, and I may particularly note that the sign for *ha* is often badly formed, and that it is sometimes difficult to distinguish between the palatal and dental sibilants, and between the signs for *cha* and *va*.—The **language** is Sanskrit, employed by a person who was either very careless or ignorant. The most glaring mistakes against the rules of syntax will be pointed out in the notes on the text. Wrong forms are, *e.g.*, the Genitive *dvij-ârthinâṁ* for *dvij-ârthinâṁ*, in line 8, the Singular Dvandva-compound *chandr-ârkka-mêdinî*, in line 15, and the Past Pass. Participle *utkîrṇṇitam*, in line 19.—In respect of **orthography**, I may note that *ba* is throughout written by the sign for *va*, and that the dental sibilant is occasionally used for the palatal sibilant; thus we have *paramêsvara*, line 2; *mâhêsvara*, line 3; *Kausika*.

---

[1] No information is forthcoming as to the circumstances under which the plates of these four inscriptions were originally discovered. They will eventually be deposited in the British Museum; having been placed in my hands for that purpose by the Râja of Rewah.—J. F. F.

line 9; *pravésaḥ*, line 13, *sudhgati* and *Rájésvara*, line 18. Other mistakes, such as the occasional omission of an *akshara*, the employment of a short vowel in place of a long one and *vice versá*, the addition of a superfluous superscript *r*, the use of *ra* for *cha*, of *ksha* for *sha*, and of *kha* for *sha*, for which either the writer or the engraver is responsible, will be drawn attention to and corrected in the text.

After the usual "Ôṁ, may it be well!" and a verse in honour of Hêlamba, *i.e.* Hêramba (Gaṇêśa), the inscription refers itself, in lines 2-4, to "the reign of victory of the *paramabhaṭṭâraka mahárájádhirája paramésvara*, the devout worshipper of Mahêśvara (Śiva), the illustrious **Jayasiṁhadêva**, the lord over **Trikaliṅga,** who by his own arm had acquired the (*title of*) lord over the three *Rájas*, (*viz.*) the lord of horses, the lord of elephants, and the lord of men.—and who meditated on the feet of the *paramabhaṭṭáraka mahárájádhirája paramésvara*, the illustrious **Vâmadêva.**" And the inscription is **dated**, in line 19, in the year 926, and more accurately, in line 14, "the year 926 (expressed in decimal figures only), on the fourth *tithi* or lunar day, in the bright half in the month Bhâdrapada, on Guru-dina or Thursday."

The epithets, applied here to **Jayasiṁhadêva,** are exactly those applied in the Jabalpur copper-plate inscription[2] to the **Chêdi** (or **Kalachuri**) ruler of **Tripurî, Gayâkarṇadêva,** the father of Jayasiṁhadêva, and, in the Lâl-Pahâr rock-inscription[3] of the [Chêdi] year 909, to **Narasiṁhadêva,** the elder brother of Jayasiṁhadêva, and, in the Kumbhî copper-plate inscription[4] of the [Chêdi] year 932, to **Vijayasiṁhâdêva,** the son of Jayasiṁhadêva. And since our inscription, to judge from the characters in which it is written, belongs to about the 12th century A.D., there can be no doubt that the prince Jayasiṁhadêva mentioned here, is the **Chêdi** ruler of that name, whom from a Têwâr inscription[5] we know to have ruled in the [Chêdi] year 928, the younger son of Gayâkarṇadêva, and that the year 926, in which the inscription is dated, must be referred to the **Chêdi era.**

It is more difficult to explain the exact significance of every one of the epithets used with reference to Jayasiṁhadêva and his relatives. As to the title 'lord over the three *Rájas*,' etc., it may suffice to state that the Chêdi rulers share it with some of the Râthôr princes of Kanauj.[6] And regarding the expression *Trikaliṅgádhipati* 'lord over the three Kaliṅgas,' I agree with Sir A. Cunningham[7] in considering the term **Trikaliṅga** to denote, or to be an older name of, the province of **Têliṅgana,** and I may mention that the same title *Trikaliṅgádhipati* occurs also in lines 3 and 43 of the copper-plate inscription from Kapâlêśvara, in Orissa, published *ante*, Vol. V., pp. 55-57. But I am unable, at present, to explain properly the phrase "meditating on the feet of the *paramabhaṭṭáraka mahárájádhirája paramésvara*, the illustrious **Vâmadêva,**" which is used of Jayasiṁhadêva and his elder brother, as well as of his father and son. In accordance with ordinary usage, that expression ought to mean that Vâmadêva was one of the ancestors of the princes who are said to meditate on his feet, but none of the inscriptions of the Chêdi rulers of Tripurî or Ratnapur which are known to me, mention a prince Vâmadêva in the genealogical lists which they contain.

As regards the **date,** I have shown, *ante*, page 219, that the corresponding European date, which in my opinion satisfies the requirements of the case, is **Thursday, August 21, 1175.**

In line 4, our inscription goes on to state that in the town of **Kakkarêḍikâ** there was once a *Mahárâṇaka* **Jayavarman** (line 6), born in the **Kaurava** *vaṁśa*. His son was the *Mahárâṇaka* **Vatsarâja** (line 7); and his son again was the devout worshipper of Mahêśvara (Śiva), the *Mahárâṇaka* **Kîrtivarman** (line 9). This chief, who clearly owed allegiance to the Chêdi ruler Jayasiṁhadêva, on the date mentioned, and on the occasion of making the funeral oblations in honour of his deceased father Vatsarâja (line 14), granted the village of **Ahaḍâpâḍa,** situated

[2] *Archæol. Survey of India*, Vol. IX. p. 88.

[3] *Ib* Vol. IX. plate II.

[4] *Journal Beng. As. Soc* Vol. XXXI. p. 119.

[5] *Journal American Or. Soc.*, Vol. VI. p 512.

[6] See *ante* Vol XV. p 9, note 52

[7] *Ancient Geography of India*, p 519.—The Chedi rulers spoken of were styled 'lords over *Tri-kalinga*', their capital was *Tri-puri*; and according to Pandit Bhagvanlal Indraji the Chedi era is identical with the era of the Traikuṭakas, a name derived from *Tri-kuṭa*. This may be accidental, but it may as well be pointed out.

in the **Khaṇḍagahâ** *pattalâ*, to two Brâhmaṇs, the *Ṭhakura* Mahâditya and the *Ṭhakura* Śîlaṇa, sons of the *Ṭhakura* Chaturbhuja, son's sons of the *Ṭhakura* Gayâdhara, and sons of the son's son of the *Ṭhakura* Trilôchana, of the Kauśika *gôtra*, and whose three *pravaras* were Audala, Viśvâmitra, and Dêvarâta.

Lines 15-18 contain some of the customary benedictory and imprecatory verses; and lines 18 and 19 state that the inscription was written, with the consent of the *Ṭhakura* Ratnapâla, by the *Ṭhakura* Vidyâdhara, son of Mâlhê, son's son of Dhârêśvara, and son of the son's son of Râjêśvara, and engraved by the workers in iron Kûkê and Kîkaka.—In all this part of the inscription, from line 4 to 19, there is nothing which calls for any particular remark.

The town of **Kakkarêḍikâ** is the modern **Kakrêri,** Long. 81° 17′ E., Lat. 24° 56′ N., 'a large place on the table-land at the head of the principal Pass, the Mamani Ghâṭ, leading to the west towards Bânda and Kâlanjar and Mahôba.'[8] The village granted, and the *pattalâ* in which it was situated, I am unable to identify on the maps at my disposal.

TEXT.[9]

1 Ôṁ[10] svasti || Amôdaś[11]=cha pramôdaś=cha sumukhô durmmukhas=tadâ(thâ) | avighnô vighna-karttâ cha Hêlamvô(mbô) Gaṇa-

2 nâyakaḥ || Paramabhaṭṭâraka-mahârâjâdhirâja-paramêsva(śva)ra-śrî-**Vâmadêva**-pâd-ânudhyâta-parama[bha*]ṭṭâraka-

3 mahârâjâdhirâja-paramêśvara-paramamâhêsva(śva)ra-**Trikaliṅgâdhipati**-nija-bhuj-ôpârjjit-âśvapati-gajapati-narapati-râjatra-

4 y-âdhipati-śrîmaj-**Jayasiṁhadêva**-vijaya-râjyê || Aś'sha-viś'sh-ârtha-[12]samanvitâyâṁ dêva-dvija-guru-tarp[13]-âśva-nishêvitâyâṁ |[14] **Kakkarêḍikâ** ऽbhidhânâyâṁ

5 nagaryyâ[ṁ*] **Kaurava**-[va*]nya[15](ṁśa)-saṁbhûta upârjjakô ऽśesha-râjaguṇ-âlaṁkṛita-śarîraḥ parama-mâhêśvarô mahâ-vra(bra)hmaṇyô ऽnêka-dân-ôdaka-prakshâlita-vâ-

6 mêtara-kara-prakôshṭhaḥ | anêka-saṁgrâma-bhûmau kari-ghaṭâ-kumbha-visravaṇa-[16] paṁchânanaḥ samasta-kshatriya-garva-hṛidbhiḥ[17] | mahârâṇaka-śrî-**Jayava-**

7 **rm[â*]** nâma âsît | (||) Êtasya putrô durvvâra-vairi-vâraṇa-[saṁva]rttaḥ | Karṇṇa iva kuṇḍala-kirîṭa-dhârî | mah[â*]râṇaka-śrî-**Vatsarâjô**=bhût [||*]

8 Êtasya putrô mahâ-mâhêśvaraḥ[18] kalpavṛikshavat dvij-ârthi(rthi)nâṁ vâṁchita-phala-pradô=rjjuna iva châpên=êkshu(shu)-kôṭi-samutsârit[19]-ârâti-ku-

9 lô mahârâṇaka-trî(śrî)-**Kîrttivarmâ**[20] Kausi(śi)ka-gôtrasy=Audala-Viśvâmitra-Dêvarâ[ta]-[21] triḥ[22]pravarêbhyaḥ[23] yajana-yâjan-âdhyayan-[â*]dhyâ-

10 pana-dâna-pratigraha-shatkarma-ratêbhyaḥ | ṭhakura-śrî-Trilôchana-prapautrêbhyaḥ | ṭhakura-śrî-Gayâdhara-pautrêbhyaḥ | ṭhakura-śrî-Chaturbhu-

11 ja-putrâbhyâṁ ṭhakura-śrî-Mahâditya-Śîlaṇa-vrâ(brâ)hmaṇâbhyâṁ **Khaṁḍagahâ-** pattalâyâṁ **Ahaḍâpâḍa-grâma**[ḥ] sva-sî-

12 mâ-paryantaś=va(cha)tur-âghâṭa-viśuddhaḥ sa-jala-sthalaḥ s-âmra-madhûkaḥ sa-lavaṇâkaraḥ sa-gartt-ôkha(sha)raḥ sa-nirga-

13 rma(ma)-pravêsa(śa)ḥ sa-gôprachâraḥ sa-nidhirni(ni)kshêpaḥ kalyâṇa-dhanaḥ sa-karô mâtâ-pitrôr=âtmanaś=ch=ânaṁta(nta)-puṇya-yaśô-vivṛiddhayê

14 **saṁvat 926 Bhâdrapada-mâsê śukla-pakshê va(cha)turthyâṁ tithau Guru-dinê** râṇaka-śrî-**Vatsarâjasya** nimittê piṁḍârchana-sthâ[n]ê saṁpra-

---

[8] *Archæol. Survey of India*, Vol XXI. p. 146.

[9] From the impression.

[10] Expressed by a symbol.

[11] Metre, Ślôka (Anushṭubh).

[12] *Viśêsh-ârtha* I take to be used in the sense of *viśisht-ârtha*.

[13] This appears to be a mistake for *guruvarya* 'excellent teachers.'

[14] Here and in other places below, which it is unnecessary to point out separately, the sign of punctuation is superfluous

[15] This *akshara* was intended to be *ṁśa*.

[16] *Visravaṇa* appears to be used in the sense of *vidâraṇa*, 'a lion to tear open.'

[17] Read—*hṛit*.

[18] Originally—*svar'h*.

[19] Originally *sasamutsârit*.

[20] On the top-margin we have the *akshara ṇâ*, in what appears to be a more modern handwriting, with an intimation that it should be inserted here. *Kîrttivarmâ* is thereby changed to the Instrumental *Kîrttivarmaṇâ*, which must be construed with *sampradattaḥ* in line 15, but which does not agree with the preceding Nominative cases.

[21] This *akshara* appears to be *tra*, altered to *ta*. Compare *Âśvalâyana-śrautasûtra*, XII 14, 2.

[22] Read *tripra°*.

[23] Here and in the following the Plural ending *ebhyaḥ* is put wrongly for the Dual ending *âbhyâm*

Rewah Plate of the Maharanaka Kirttivarman.—The Year 926.

2 4 6 8 10 12 14 16 18

J. F. FLEET, BO. C.S.

SCALE ·60.

W. GRIGGS, PHOTO-LITH.

15 dattaḥ[॥*] Ôm svasti ॥ Yê[24] bhavaṁti kulê=smakaṁ śûrâ vîrâś=cha saṁgarê ।
tê pâlayaṁtu mê dânaṁ yâvat chaṁdr-ârkka-mêdinî ॥ Va(ba)hubhiḥ[25]-
16 r=bhuktâ vasudhâ râjabhiḥ Sagar-âdibhiḥ[।*] yasya yasya yadâ bhûmis=tasya
tasya tadâ phalaṁ ॥ Kuś[26]-ôpagraha-hastâbhyâm [ch(i)t=tau] Râma-
17 Lakshmaṇau[॥*]Sa-datt[â*]ṁ vâ[27] para-dattâṁ va yô haret(ta) vasuṁdharâṁ[।*] sa
vishṭhâyaṁ krimiṁ(mir=)bhûtvâ pi[tṛi][28]bhiḥ saha majjati ॥ Taḍâgânâṁ saha-
18 srêṇa aśvamê[dha*]-śatêna cha । gavâṁ kôṭi-pradânêna bhûmi-harttâ na
su(śu)dhyati ॥ Ṭha[29] । śrî-Râjêsva(śva)ra-prapautrêṇa । ṭha । Dhârêśvara-pautrêṇa
19 ṭha । Mâlhê-putrêṇa । ṭha । Ratnapâlasya sammatya ṭha । Vidyâdharêṇ=âlêki ।
Lôhakâra-Kûkê-Kîkakâbhyâm[30]=utkirṇṇitam=iti [॥*] **Saṁvat 926** [॥*]

B.—Copper-Plate Grant of the Mahârâṇaka Salakhaṇavarmadêva. The (Vikrama) year 1253.

This inscription, again, is on a **single plate,** measuring about 15⅜″ by 9″, and inscribed on one side only. The plate is quite smooth; the edges of it being not fashioned thicker, nor turned up, nor protected in any way. As the result, the preservation of the inscription is only fairly good; for, the surface of the plate is a good deal worn, especially in the proper left half, down to about line 14, and, in the right half, from about line 8 to 14, so that some *aksharas* here are only faintly visible, and a few others are altogether illegible. At the same time, all that is historically important, is clear and distinct; and, so far as the actual decipherment is concerned, not in the least doubtful.—In the upper part of the plate, there is a **ring-hole;** but the ring, with any seal that may have been attached to it, is not now forthcoming.—The **weight** of the plate is 192¼ tolas.—The average **size of the letters** is about ¼.″ The **characters** are Dêvanâgarî of about the 12th century A.D., and very similar to those of the grant A.—The **language** is Sanskṛit, employed by a person of little knowledge, and therefore disfigured by serious grammatical blunders. Thus we find, in lines 7 and 8, the construction *sô=haṁ . . . . samâjñâpayati vôdhayati cha* 'I . . . command and inform'; in line 9 and elsewhere, a number of crude forms used instead of Nominative cases; in line 15, the construction *yat=pradattaṁ . . pâlanîyâ rakshaṇîyâś=cha*, in line 6, the compound *śuta-dvau* 'two sons' for *suta-dvayam* or *dvau sutau*;[31] and in line 14, *mâtripitrôḥ* for the very common *mâtâpitrôḥ*.—In respect of **orthography,** I may note that *ba* is written by the sign for *va*, except in *babhûva*,[32] line 7, and that the palatal and dental sibilants are often confounded, even in ordinary and well-known words. Thus, we have *-sarman*, for *-śarman*, several times in lines 10-12, *yasô* and *sâsanatvê* in line 14, *vasugaiḥ* in line 15; and on the other hand, we have *śûkshmâ*, for *sûkshma*, in line 2, *śuta* in line 6, *śuvarṇṇam* in line 19; and the same wrong use of *śa* for *sa* has caused the employment, in line 6, of *śrîmach-Chhalakshaṇa-* for *śrîmat-Salakshaṇa-*. Carelessness on the part of the writer or engraver is responsible also for the wrong verse in honour of Bhâratî in lines 1 and 2, for the mutilated verse in line 16, and for the occasional employment of the dental for the lingual nasal, of *ca* for *cha*, of *na* for *ra*, and for other mistakes which will be pointed out in the text.

Opening with the words "Ôm, may it be well!" and two verses in honour of the god Brahman and of Bhâratî, of which the first occurs also at the beginning of the inscriptions C and D, our inscription refers itself, in lines 2-4, to "the auspicious reign of victory of the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*, the devout worshipper of Mahêśvara (Śiva), the illustrious **Vijayadêva,** the lord over **Trikaliṅga,** who by his own arm had acquired the (*title of*) lord over the three *Râjas*, (*viz.*) the lord of horses, the lord of elephants, and the lord of men,—and who meditated on the feet of the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*, the devout wor-

[24] Metre, Ślôka (Anushṭubh), here and in the following verses.
[25] This sign for *visarga* is superfluous.
[26] This appears to be the beginning of a verse which I have not met with elsewhere. I am somewhat doubtful about the words put in brackets.
[27] This *vâ* is put in by mistake.
[28] Originally *tri*.
[29] *i.e. Ṭhakura*.
[30] Originally *bhyânam*.
[31] See *ante*, page 8, note 3.
[32] In this particular word, the proper sign for *ba* has been preserved also in other inscriptions, in which *ba* is otherwise denoted by the sign for *va*. See Hultzsch, in *Zeitschrift D. M. Gesellschaft*, Vol. XL, p. 50.

shipper of Mahêśvara (Siva), the illustrious **Vâmadêva.**" And the inscription is **dated,** in line 13 "the year of years 1253 (expressed in decimal figures only), on the seventh *tithi* or lunar day, in the dark half in the month Margaśira, on Sukra-dina or Friday."

With the exception that Vamadêva is styled here "the devout worshipper of Mahêśvara (Siva)," which is sufficient to prove that Vamadêva cannot be Siva himself,[33] the epithets here applied to **Vijayadêva** are the same as those applied to **Jayasiṁhadêva** in the inscription A. And as the date of the inscription must clearly be referred to the Vikrama era there can be no doubt that the Vijayadêva here spoken of is the son of Jayasiṁhadêva of the inscription A, **Vijayasiṁba,** the **Chêdi** ruler of **Tripurî,** of whom we possess the Kumbhi copper-plate inscription of the Chêdi year 932 = A.D. 1180-81.

As regards the **date,** the 7th of the dark half of Margaśiras, of the Vikrama year 1253 current, by the northern reckoning, corresponds to **October 27, A.D., 1195,** which *was* a **Friday,** as required. On that day, the seventh *tithi* of the dark half ended about 7h 35m after mean sunrise.

From lines 4-6 of the inscription we learn that at the capital of **Kakarêdî** there was once a personage named **Dhâhilla,**[34] who was an object of respect for all princes. After him came **Vâjûka, Dandûka, Khôjûka,** and **Jayavarman,** whose exact relationship to Dhâhilla or to one another cannot be determined from the present inscription. Jayavarman's son was **Vatsarâja**; and that chief had two sons, head-jewels of *Sâmantas* or feudatory chiefs, **Kirtivarman** and **Salakshaṇavarmadêva** (or Salakhaṇavarmadeva, as the name is written afterwards) of whom the former succeeded his father while he himself was succeeded by Salakshaṇavarmadêva.

In lines 7-14 the chief **Salakhaṇavarmadêva,** who had attained the five *mahâśabda* and who evidently owed allegiance to the Chêdi ruler Vijayadêva, informs the people and the officials concerned, that on the date mentioned above he gave the village of **Chhidaudâ,** in the **Kûyîsavapâlisa** *pattalâ*, to certain Brâhmaṇs, son's sons of the son (or sons) of the *Thakkura* Mâdhava of the Kauśilla *gôtra*, and whose three *pravaras* were Kauśilla, Viśvâmitra, and Dêvarâta (?). The village thus granted was divided into five *padas*[35] or shares of which two were given to Râmaśarman, Gathaśarman, and Dâmaraśarman, sons of—(?), while one share went to —— śarman (?), the son of Chithu, one to Paitśarman, the son of Pithana, and one to Haridattaśarman, the son of Sridhara.

Lines 14-19 contain the usual admonition to give to the grantees whatever might be due to them, and to protect them in the possession of their property, and some of the customary benedictory and imprecatory verses. And the concluding line 20 appears to say that the inscription was engraved by Kukê and his son and to contain some statement, which I do not understand, concerning the quantity of grain necessary for sowing the field granted.

There is nothing in lines 4-20, which calls for any further remarks. I have only to add that I am unable to identify the village and the *pattalâ* mentioned in the inscription on my maps.

TEXT.[36]

1 Om ! svasti ‖ Nirguṇam[37] vyâpakam ni[tyam] śiva[m] parama-kâraṇa[m] [bhâva-grâhyam para[m]]m jyôtis-tasmai sad-Bra(bra)hmaṇê namaḥ ‖ (1) Suddhe[38] hṛidaya-kshê[tre] [illegible] dhyâ-

2 yanti ya[m] munayaḥ [illegible] môksha-[illegible]-phala-pradâ Bhâratî śû(su)kshmâ sâ jayati ‖ Paramabhaṭ[ṭâ]ka-mahârâjadhirâja-paramêśvara-paramamâ-

3 hêśvara-śrî-Vâmadêva-pâdânudhyâta-paramabhaṭṭâraka-mahârâjâdhirâja-paramêśvara paramamâhêśvara-Trikaliṅg[âdhipati-nija]bhuj[ôpârjita]-

[33] See [illegible] *of India*, Vol. XXI [illegible]

[34] [illegible]

[35] For [illegible] Vol. XV, p. 39, verse 75

[36] From [illegible] impression. [37] Metre Slôka (Anushṭubh).

[38] [illegible] looks like an Âryâ but its construction [illegible]

[illegible] of punctuation is superfluous

2
4
6
8
10
12
14
16
18
20

J. F. FLEET, BO. C.S.

SCALE ·60.

W. GRIGGS, PHOTO-LITH.

4 śva[pa]ti gajapati-narapati-rajatray-âdhipati-śrîmad-**Vijayadêva**-kalyâṇa-vijaya-râjyê ||(||) **Ka[ka]rêḍyâ[ṁ]** ra[ja]dhânyâṁ **Dhâhi[llô** nâm=a]bhavat | Sa cha mâ-

5 [nyô]=bhavat=sarvva-narêśvarâṇâṁ [|*] Tasmâd=**Vâjûkô Daṁdûkaś**=ch=âpi [kra-mataḥ ?][10] **Khôjûkô Jayavarmmâ** cha babhuva tad-a[nantaraḥ][11][|*] [Atha **Jayavarmmadêvasy**=âpa ?[tyam **Vatsarâja**-[su]-

6 tô=bhava[t |] sâmanta-śirôratnô(tnê) yêna jâtau śu(su)ta-dvau | **Kîrttivarmmâ** sutô jyêshṭhaḥ prâpta-pitṛipadaṁ[12] sva[taḥ] | śrîmach-**Chha**[13]**[laksha]ṇavarmma-[dê]vô**=pi kramâd=râ-

7 jyam=avâpa yaḥ |(||) Sô=haṁ samasta-prakṛi[shṭ]-ôpêta-samadhigata-paṁchamahâśavd(bd)-âlaṁkâra-virâjamâna-śrî-**Salakhaṇavarmmadêvô** vijayî |[14] **Kûyîsavapâlisa-**

8 pattalâyâṁ **Chhiḍau[ḍâ]**-grama-nivâsinaḥ samasta-praja-lôkân=anyâṁś=cha yathâsthân-âdhishṭhitân samâjñapayati[15] vô(bô)dhayati[15] cha | Viditam=astu [bha]va[tâṁ*] grâ-

9 mô=yam=asmâbhiś=chaturâghâṭaviśuddha-[16]sajalasthala-sâmramadhûka-sagarttôshara-nidhi-nikshêp-akâśôtpatti-su(sva)sîmâparyanta-savanatriṇamṛigapakshikhani-

10 gôcharaparyantaḥ || Kauśilla[17]-gôtrâya Kauśilla-Viśvamitra-Dêvarâja(ta ?)-tri-pravarâya | tha |[18] Mâdhava-prapautraya[19] Mahi[— — ṇa]-putrâya [Râma]sa(śa)rmmaṇê vrâ(brâ)hmaṇâya | ta-

11 thâ Gâ[thê]sa(śa)rmmaṇê vrâ(brâ)hmaṇâya | tathâ Dâmarasa(śa)rmmaṇê vrâ(bra)-hmaṇâya | êtêshaṁ pada 2[|*] tha Mâdhava-prapautrâya [Ch]i[th]u-putrâya [—ṁ—?]sa(śa)rmmaṇê vrâ(bra)hmaṇâya | pada 1 |*] tha |

12 Mâdhava-prapautrâya Pîthana-putrâya Paitêsa(śa)rmmaṇê vrâ(brâ)hmaṇâya pada 1[|*] that Mâdhava-prapautr[â]ya Śrîdhara-putrâya Haridattasa(śa)rmmaṇê vrâ(brâ)-hmaṇâya pa-

13 da 1 [|*] êvaṁ grâmasya pada 5 [|*] **saṁvatsarâṇâṁ sa[ṁ]vata(t) 1253 Mârggaśira-mâsê kṛishṇa-pakshê saptamyâṁ tithau Śukra-dinê Kaka-rêḍyâṁ** sthânê snâtvâ Śivaṁ pra-

14 pûjya mâtri(tṛi)pitrôr=âtmanaś=cha puṇya(ṇya)-yasô(śô)-vivṛiddhayê et[ê*]bhyô vrâ(brâ)-hmaṇa(ṇê)bhyô grâmô=yaṁ sâ(śâ)sanatvê[50] pradattaḥ | Matv=ai[va]m=âj[ñ*]â-vidhêyîbhûya sarvvam=ê-

15 t[ê]bhyaḥ pradâtavyaṁ | yat=prada[ttaṁ][51] maya mam=âjñâvasa(śa)gaiḥ sâmant-âdibhir=api palanîyâ(yaṁ) rakshaṇîyâś(yaṁ)=ch=êti |(||) Bhavanti ch=atra puṇya-ślôkaḥ |

16 Sarvvân[52]= tâ[n] bhâvinaḥ pârthiv- ndrâ[n] bhû[y]ô bhuyô yâchata[53] Râ | sâmâny[ô]= yaṁ dharmmaḥ sa tu nṛipâṇâṁ kâl- pâlanîyaḥ[54] |(||) Śaṁkhaṁ[55] bhadr-âsanaṁ

17 chha[t*]traṁ var-âśvaṁ vara-vâraṇâ ... ... tasya vi(chi)hnâni phalam=[ê] tat= Purandara || Va(ba)hubhir= ... ... rajabhiḥ Sagar-âdibhiḥ | yasya

18 yasya yada bhûmis=tasya tas ... ... Bhûmiṁ yaḥ pratigṛihṇ(hṇa)ti yaś=cha bhûmiṁ pray ... ... tau puṇya(ṇya) karmmaṇau niyatau svargga-gâ-

[49] After this there is a sign of punctuation ... been struck out.

[11] This passage ... below ... the concluding wo ...

[12] Perhaps altered to ...

[13] ...

[14] Here and in other ... necessary to point out ... superfluous.

[15] Here the third ... of the first.

[16] Here and below ... been omitted through ...

... a derivative from *Kauśika*.

... draw attention to the fact that the names of ... of the grantees are not given ...

... in the grants C and D the Locative case ... instead of the more common Instru...

[52] Metre, Śalini.

...

... Anushṭubh here and in the following

2 Dhyân[67]-aikatân[a*]-manasô vigata-praśâ(sâ)râḥ paśyanti yaṁ kim=api nirmalam=advitîyaṁ | jñân-âtmanê vighaṭit-âkhi-

3 la-va(ba)ndhanâya tasmai namô bhagavatê Purushôttamâya || Jayanti[68] Vâ(bâ)ṇâsura-mauli-lâlitâḥ kach-âsya-chûḍâma-

4 ṇi-chakra-chumvi(mbi)naḥ | sur-âsur-âdhîśa-śikhânta-śâyinô bhava-chchhidas=Tryamva(mba)ka-pâda-pânśa(ṁśa)vaḥ || Svasti[||*] Paramabha-

5 ṭṭâraka-mahârâjâdhirâja-paramêśvara - paramamâhêsa(śva)ra - śrîmad - **Vâmadêva** - pâd - ânudhyâta[69] |[70]-paramabhaṭṭâraka-mahârâjâdhirâja-paramêśvara-va(pa)-

6 ramamâhêśvara-**Trikaliṁgâdhipati**-nija-bhuj-ôpârjjit-âśvapati-gajapati - narapati - râjatray-âdhipati-śrîmat-**Trailôkyavarmmadêva**-kalyâ-

7 ṇa-vijaya[71]-râjyê |(||) Asty=anêka-guṇa-grâma-dhâma-ta[ru]ṇa-ramaṇa-vibhra[ma-bhra]maṇa-janita-śram-ôpaśram-âśram[72]-âsamâbhirâm-[â*]râma-rama-

8 ṇîyâ | vivu(bu)dha dig-vidita-vividha-dhanikajana-dhavalita-bhavana-tulita-gaganamaṁḍalâ | vâpî-kûpa-taḍâg-ôttuṁgadêvatâyatana-prap-â-

9 lôkan-âśvâsita-pântha-sârtha-viśrâma-bhûmiḥ | ghanavana-giri-gahvar-ôdara-darî-sarala-tarala-tâla-tamâla-saṁkulik[ṛi]ta-sî-

10 mântâ | vividha-veda-dhvani-dhvasta-samasta-kalmashâ | **Kakarêḍikâ** nâma nagarî |(||) Êtasyâṁ nagaryyâṁ **Kaurava**-vaṁ[śa*]-samudbhûtô aśêsha-[73]guṇa-

11 gaṇ-âlaṁkṛita-śarîrô dêva-dvija-guru-su(śu)śr[û]sh-ânuraktaḥ | atîva śaktaḥ | Pârvvatîpati-pâdapaṁkaj-ârâdhan-aikachittaḥ | paramamâhê-

12 śvara-mahârâṇaka-śrî-**Dhâhilla**-nâm=âbhavat |(||) Tasya putrô vividha-vidyâ-vinôda-rasikaḥ | kâminîjana-mânasa-râjahaṁsaḥ

13 vidita-jaga[t=k]îrttiḥ | dalit-ârâti-varggaḥ | prakaṭita-saṁgrâma-sau(śau)ryaḥ | **Durjayô** nâma vâ(râ)jyapâlô[74] babhûva | (||) Asy=âtmajô dôrdaṇḍa-

14 chaṁḍim-ârjjita-bhûpa-bhûmi-vibhûty-a[dbhu]ta-[vi]jñâna-vilâsô durddhara-ripu-pa(va)na-dahana-dâvânalo | lalita-yuvatijan-ânaṁda-maṁdirah | prauḍha-

15 turag-âva(pa)gâ-va[lg?]âvagâhana-viḍaṁvi(mbi)ta-Rêvaṁtaḥ |[75] mahârâ[ṇa]ka-śrî-**Shôjavarmmadêvô** dina[kri]d=iv=âbhavat || Êtad-âtmajô nija-vi-

16 kram-âkrânta-bhûmaṁḍalaḥ | tu(mu)gdha-ramaṇî-vadan-âraviṁda-makaraṁda-[ma]dhukaraḥ | dîn-ânâtha-manôrath-ôddharaṇa-dhuraṁdharaḥ | sadâ Śiva-

17 pri-ânuraktaḥ | maharaṇaka-śrî-**Jayavarmma**-nâm=âsîta(t) || Asya sûnuḥ sakala-kalâkva(ka)lita-tatvah[76] | pratidalita-dṛipt-âri-va-

18 rggaḥ | pratidina-dîyamâna-dâna-gîta-kîrttiḥ | Pâr[vva]tîramaṇa-charaṇâraviṁda-shatpadaḥ | mahârâṇaka-śrî-**Vatsarâjô** [ba]-

19 bhûva || Êtat-putraḥ samabhavat=sajjan-ânaṁda-kârî | vidvajjan-ôpanîta-nîtiśâstr-âchâra-chârî | sauṁdarya-darp-ôddhata-Kaṁda-

20 rpa-darp-âpahârî | karatal-âkalit-âdhijy-ôddaṁḍa-kôdaṁḍa-chaṁḍim-âkhaṁḍit-ârâti-saṁghaḥ | kâya-vâk-chitt-ârâdhita-

21 Śaṁkara-charaṇa-yugal-âvanamrîkṛit-ôttamâṁgaḥ || mahârâṇaka-śrî-**Salashaṇavarmmadêvô** babhûva | (||) Êtasmâj=jâtaḥ sa-

22 kala-jana-nayan-ânaṁda-kârî | dikchakr-âkramaṇ-ôpanîta-tîrth-ârthi-pathika-s[â*]rtha-[77]viśrâma-śaṁsî | paṁḍita-vṛiṁda-sâna[ṁ]da-pra-

---

[67] Metre, Vasantatilakâ.

[68] Metre Vaṁśastha.—The verse is taken from Bâṇa's *Kâdambarî*, Bo. Ed., page 1, v. 2. In the second Pâda the proper reading is *Daśâsya*, *i.e.* Râvaṇa, not *kachâsya*, nor, as the grant D. has it, *kacâsya*.

[69] Originally °*dhyât*.

[70] Here and in other places below, which it is unnecessary to point out separately, the sign of punctuation is superfluous.

[71] Originally *vijya*.

[72] The grant D omits this *âśram*; and I believe that *śram-ôpaśram-âsamâbhirâm-ârâma* is the right reading.

[73] Read °*śêsha*-.

[74] The grant D also has *râjyapâlô*.

[75] In the grant D the epithet *prauḍha-turag-âvagâhana-viḍamvi(mbi)ta-Rêvantaḥ* is applied to the chief Kîrtivarman.

[76] This is the reading also of the grant D., but as that grant, below, in reference to another chief, has the epithet *sakala-kalâ-kalita-kalêvaraḥ*, the right reading here may be *sakala-kalâ-kalita-tanuḥ* (not -*tattvaḥ*).

[77] This word might be read *sârtva*; but the grant D has *sartha*.

23 kaṭita-guṇa-grâma-yôgya-dêya-dâyî | sat-pâtr-ôpanîta-nîtisûtra-vyavahâra-karṇṇadhâraḥ | vidagdha-vanitâ-parimalita-

24 vividha-surata-vyâpâraḥ | karpûra-dhûli-dhavalita-pûgaphala-[pha ||(?)li]-[78]satat-âpûrita-vadana-vistâraḥ | saṁgrâm-âṅgaṇa-saṁbhṛi(hṛi ?)ta-Śaṇmu-

25 kha-[79]darp-ôddhata-vairi-varggaḥ | mahârâṇaka-śrî-**Harirâjadêvô** Harir=iv=âsît || **Êtad**-âtmajaḥ sakala-śâstra-śastra-gîta-pari-

26 jñâta-tat[t*]vaḥ | Parvvataputrikâ-priya-charaṇakamala-samârâdhana-tatparaḥ | gô-hiraṇya-dhânya-ratna-bhûmi-dân-ôdaka-

Second plate; first side.

27 prakhyâ(kshâ)lita-vâmêtara-kara-prakôshṭhaḥ | dôrddaṇḍa-chaṇḍimâ(ma)-vikhaṁḍita-ripu-muṁḍa-maṁḍalî-vimaṁḍita-Chaṁḍikâ-charaṇa-yugalaḥ | kâminî-ku-

28 cha-kalasa-kuṁkum-âṁkita-vakshaḥsthalaḥ | mahârâṇaka-śr[î]-**Kumavapâladêvô**[80] vi-jayi |(||) **Vadharâ**-[81]pattalâyâṁ | **Rêhî**-grâma-nivâsina[ḥ] samasta-pra-

29 jâ-lôkân=samâjñapayati vô(bô)dhayati cha | Grâmô=ya[ṁ] mayâ chatur-aghâṭa-viśuddha uttarasyâṁ disi(śi) Haladuâ sîmâ | pûrvvasyâṁ disi(śi) Pa[vâ]pa-[82]

30 palâkasya pippalaṁ[83] sîmâ | dakshiṇasyâṁ disi(śi) Naṁdâjhari madhûkas=cha su(sî)mâ | paśchimâyâm disi(śi) Vaḍa[spa]mâ[ga]likâ sîmâ | madhya-grâ-

31 mê ḍimarasihâna[uga?]ṁ | âmrâś=cha | vâpî madhûkâś=cha | tathâ grâmê pushkariṇî-chatvârakaṁ | sajalasthala-sâṁvra(mra)-[ma]dhûka-sa-garttôshara-nidhi-

32 sa-lavaṇa-tṛiṇa-pakshi-mi(ni)kshêpadhana-gôcharaparyantaḥ | Mauṁḍilya-[84]gôtrêbhyaḥ | Mauṁḍilya-Âṁgirasa-Vâ(bâ)rhaspatya-triḥ[85]pravar[ê]bhyaḥ

33 | yâyu(ju)rvvêdibhyaḥ | vêda-vêdâṁga-pâragêbhyô brâhmaṇêbhyaḥ | svahâ-svadhâ-dâvapûj-âdi-shaṭkarmma-nishṭhêbhyaḥ | ṭhakkura-śrî-Sêlha-prapautrêbhyaḥ

34 ṭhakkura-śrî-Lâhaḍa-pautrêbhyaḥ | râuta-śrî-Aṇa[va]pâla-putrêbhyaḥ | râuta-śrî-Sâṁgê | Sûhaḍa | Mahâita | Ramasiha | Sômîvî-

35 jhû | râuta-śrî-Sâvantaśarmmaṇêbhyaś=cha | **saptanavaty-adhikê dvâdaśa-śata-saṁvatsarê aṁkê=pi 1297 Kârttikyâ[ṁ]** snâtvâ Śiva-

36 sannidhau mâtṛipitrôr[86]=âtmanaś=cha puṇya-yaśô-vivṛiddhayê sâ(śâ)sanatvê vra(pra)datta iti |(||) Mad[87]-vansa(ṁśa)jâḥ para-mahîpati-vaṁsa(śa)jâ yê yê

37 ch=âpi dharma-niratâ bhuvi bhâvi-bhûpâḥ | tê pâlayantu mama dharmam=idaṁ samastaṁ têshâṁ virachitô[88] mayâ=ñjalir=êsha mûrddhni [||*]

38 Yât[89] yânti mahîbhujaḥ kshitim=imâṁ bhûyô=pi yâsyanti tê | nô yâtâ na cha yâti yâsyati kadâ kên=âpi sârddhaṁ

39 dharâ | Râmô Dâsa(śa)rathî Ragh-ûttama-k[u*]lê saṁyâchatê bhûmipân matv=êdaṁ vasudh-âdhipaiḥ para-[kri][90]tâ lôpyâ na sa[t-kî-]

40 rttayaḥ || Va(ba)hubhir[91]=vvasudhâ bhuktâ râjabhiḥ Sagar-âdibhiḥ | yasya yasya yadâ bhûmis=tasya tasya tadâ phalaṁ || Karttuḥ[92]

41 svayaṁ kârayituḥ parêṇa chittê[na] tushṭê[na] tath=ânumantuḥ | sâhâyya-karttuś=cha śubh-âśubhâni[93] tulyaṁ phalaṁ vêda-vidô

42 vadanti || Bhûmiṁ[94] yaḥ pratigṛihṇâ(hṇâ)ti yaś=cha bhûmiṁ prayachchhati | ubhau tau puṇya-karmâṇau niyatau svargga-gâminau || Sva-

---

[78] The *aksharas* in these brackets appear to have been struck out. [79] Read *Shaṇmukha* i.e. Kârttikêya.

[80] I believe the name of the chief to have been *Kumârapâla* or *Kumârapâla*, but the mistake in the most important name of the whole inscription appears extraordinary, especially as the inscription otherwise contains comparatively few mistakes. *Va* is engraved for *ra* also in *vyavapîl°*, line 13.

[81] This word might be read *Vararâ*, but D has distinctly *Vadharâ*.

[82] Here and in the following two lines there are several expressions which I am unable to explain. I have enclosed in square brackets every *akshara*, about the reading of which there can be any doubt.

[83] Or *pippala*. According to the Dictionaries, *pippala*, as a masc., means 'the holy fig-tree,' and, as a neut., 'the berry of that tree.' In the present instance, *pippala* or *pippala* is perhaps related to *pipîla*, *pipîlaka*, *pipîlikâ*, 'an ant,' and may mean, therefore, 'an ant-hill.'

[84] This word is, here and in the sequel, particularly clear in the impression, and it is not *Kauṇḍinya*. I cannot anywhere find a Mauṇḍilya *gôtra*. Maudgalya we have, e.g., in the *Âśvalâyana-śrautasûtra* xii, 12, 1.

[85] Read *tripra°*. [86] Read *mâtâpitrôr*.

[87] Metre, Vasantatilakâ. [88] Read *mayâ virachitô*.

[89] Metre, Śârdulavikrîḍita.

[90] The *akshara* in brackets may be *hṛi*.

[91] Metre, Ślôka (Anushṭubh). [92] Metre, Indravajrâ.

[93] The grant D has *śubh-âśubhânîni*.

[94] Metre, Ślôka (Anushṭubh); and of the next two verses.

19 minau || Sva-dattâṁ para-dattâṁ vâ yô harê(ta)=vasuṁdharâṁ | sa vishṭhâyâṁ krimir=bhûtvâ pitṛibhiḥ saha majjati || Gam=êk[â*]m Su(su)varṇṇam=êkaṁ bhûmêr=apy=êkam=aṅgulaṁ [|*]

20 haran=narakam=âpnôti mâ(yâ)vad-âhûtasaṁplavaṁ || Vi[56]nâṇî Srî-Kûk[a*] tathâ putra[ḥ*] [|*] Vijê[57] kshêtra shâṁḍî 2 [||*]

C. — Copper-Plate Grant of the Mahârâṇaka Kumârapâladêva.[58] The (Vikrama) year 1297.

This inscription is on **two plates,** of which the first is inscribed on one side only, and the second on both sides. The first plate measures about 12½″ by 9½″; and the edges of it are bent up all round into a rim which is from ⅜″ to ½″ high, so that the second plate, which measures about 12¼″ by 9¼″ can lie within the protection of this rim. The inscription is well preserved; and almost every letter is perfectly clear in the impression.—There is no **ring-hole** in either of the plates; and no emblem engraved on the plates.—The **weight** of the two plates is 182¾ tolas.—The average **size of the letters** on the first plate and in the upper lines of the first side of the second plate is between ³⁄₁₆″ and ¼″. Lower down the letters gradually become somewhat larger, and the spaces between the lines wider, so that the first side of the second plate holds six lines less than the first plate.—The **characters** are Nâgarî, written by an expert writer. Excepting perhaps the palatal and dental sibilants, the letters are very distinct and hardly to be confounded one with another. The **language** is Sanskrit, and on the whole correct. In line 31 we have the unusual word *ch*[...] at the end of a compound, apparently in the sense of *chatushṭaya* 'a collection of [...]'; in lines 31 and 32 the crude forms *saj*[...] etc., instead of the customary Nominative *sajalasthalaḥ* etc.; in line 35 the Da[tive] *-śarmmaṇêbhyaḥ*, for *-śarmmabhyaḥ*; in the wrong compound *mâtṛipitṛôḥ*, [for the] regular *mâtâpitrôḥ*; and in lines 5[...] Prâkṛit term *visuâ*.—As regards **ortho[graphy]**, *ba* is denoted by the sign for *va* ev[erywhere] except in *babbhûra*, lines 13, 18 and 21 [and] *brâhmaṇêbhyaḥ*, line 33; the dental *s* [is] used instead of the palatal sibilant in [...] (for *mâhêśvara, mâhêśvara*), line 5, line 11, *-saṁgraḥ*, line 13, *diśi*, lines 29 and 30, *śâsanaṁ* and *vaṁśajaḥ* line 36, and *Dâśarathi*, line 39; and the palatal for the dental sibilant in *-prasiraḥ*, line 2. The word *Shaṇmukha* is spelt *Saṇmukha*, in line 24. The dental *n* is used instead of *anusvâra* in *-pâṁsaraḥ*, line 4, and in *vaṁsajâḥ* (for *vaṁśajaḥ*) in line 36. For *vara* we have *ṁvra* in *sâṁvra*, line 31, *tâṁvrakam*, line 46, and *tâṁvraṁ*, line 48. Other mistakes, such as the occasional use of *kha* for *ksha*, of *va* for *pa* and for *ra*, and of *pa* for *va*, etc., will be pointed out in the text.

The inscription opens with the words "Ôm. ôṁ. success!" which are followed by three verses in honour of Brahman, Purushôttama (Vishṇu), and Tryambaka (Siva), of which the last is taken from the introduction to Bâṇa's *Kâdambarî*. After this, the inscription, in lines 4-7, refers itself to the auspicious reign of victory of the illustrious **Trailôkyavarmadêva,** to whom the same epithets are applied, which in the inscription B are applied to the prince Vijayadêva, including the statement that he meditated on the feet of the *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*, the devout worshipper of Mahêśvara, the illustrious **Vâmadêva.** And the inscription is **dated,** in line 35, on Kârttikî, *i.e.* the full-moon day of the month Kârttika, in the year 1297, expressed both in words and in figures, and correspon[d]ing, as a year of the Vikrama era, to [A.D.] 1239.

[General] A. Cunningham has already suggested[59] [that the] Trailôkyavarman, here mentioned, [wa]s the **Chandêlla** prince of that name. [W]e possess an inscription at Ajay[garh, date]d in Vikrama-Saṁvat 1269 [...] d that the lands of the *Mahâ*[...]**ṅkarêḍî,** between Vikrama[...] date of the inscription B, [...]refore have passed from the

---

[56] This *akshara* may have been changed [...] not know the meaning of *vinâṇî* or *vinâṇî* [...] dently is the name of the engraver. See the [...] ms of the grants A and D.

[57] I do not know the meaning of this la[st line,] which may have reference to the quantity [...]

[58] [...] nted.

[59] [...] the name occurs only once, [...] *mârapâladêva*, see note 60

[...] Vol. XXI p. 147

Chêdi princes into the possession of the **Chandêlla** rulers. Were it not that, unfortunately, most of the photolithographs of inscriptions in Vol. XXI. of the *Archæol. Survey of India* are somewhat too trying to ordinary eyes, it might be possible to obtain from them some definite information regarding the history of the later Chandêllas and their relation to the Chêdi rulers, for the name of Trailôkyavarman occurs in the inscriptions E., G., and J. from Ajaygarh[61], and other inscriptions make mention of **Chêdi** and of its capital **Tripurî.** As it is, I can, for the present, only say that Sir A. Cunningham is very probably right, and draw attention to the singular fact that the titles of the Chêdi princes, including the reference to Vâmadêva, have here been simply transferred to a Chandêlla prince.

The contents of lines 7-28 of our inscription may be given in a very few words. In the town of **Kakarêḍikâ** (line 10), so we are told, there was once a *Mahârâṇaka*, named **Dhâhilla** (line 12), born in the **Kaurava** *vaṁśa.* His son was the ruler **Durjaya** (line 13); his son, the *Mahârâṇaka* **Shôjavarmadêva** (line 15); his son, the *Mahârâṇaka* **Jayavarman** (line 17); his son, the *Mahârâṇaka* **Vatsarâja** (line 18); his son, the *Mahârâṇaka* **Salashaṇavarmadêva** (line 21); his son, the *Mahârâṇaka* **Harirâjadêva** (line 25); and his son, the *Mahârâṇaka* **Kumârapâladêva** (line 28). The town of Kakarêḍikâ and all these chiefs, devout worshippers of Śiva, have each a string of high-sounding epithets applied to them, which do not furnish any information whatever.

In line 28-36 the chief **Kumârapâladêva,** who, it may be assumed, owed allegiance to Trailôkyavarman, informs the people concerned that, on the above-mentioned date, he gave the village of **Rêhî**, in the **Vadharâ** *paṭṭalâ*, to the *Râutas* Sâṅgê, Sûhaḍa, Mahâita, Ramasiha, Sômîvîjhû, and Sâvantaśarman, sons of the *Râuta* Aṇavapâla, son's sons of the *Ṭhakkura* Lâhaḍa, and son's sons of the son of the *Ṭhakkura* Sêlha, Brâhmaṇs who followed the Yajurvêda, who were of the Mauṇḍilya *gôtra*, and whose three *pravaras* were Mauṇḍilya, Âṅgirasa, and Bârhaspatya. The village was bounded on the north by Haladuâ, on the east by the *pippala* (or *pippala*) of Pavâpapalâka, on the south by Nandâjhari and *madhûka* trees, and on the west by Vaḍaspamâgalikâ(?); "in the middle of the village (there were)——(?), and mango trees, a pond and *madhûka* trees; also in the village four lotus-pools." There are several expressions in lines 30 and 31, concerning the boundaries of the village and the objects given together with it, which I do not understand: and I am unable to identify any of the **places** mentioned.

Lines 36-44 contain the usual admonition to protect the grantees in the possession of their property, and seven benedictory and imprecatory verses. And lines 44-49 add that this *tâmraka* or copper-plate grant was drawn up (*akâri*) by the *Kâyastha* Muktasiṁha, "by whom the reign of the child-prince was made a prosperous one and his fame spotless"; and that it was written by Mâlâdhara, the son of Śrîpati, grandson of Mahîpati, and great grandson of Sômalla; engraved by the artisan Ajayasiṁha and by Pratâpasiṁha; and acquired by the *Râuta* Sâvanta.

The second side of the second plate, lines 50-55, contains the name of the six donees, the *Râvtas* Sâvanta, Sâṅgêka, Sûhaḍaka, Mahâitaka, Ramasihaka, and Vîjhûka, as they are called here, each followed by the word *visuâ* and certain figures, apparently intended to indicate the extent of the proprietary right of each donee in the estate granted to them.[62]

TEXT.[63]

First plate.

1 Ôṁ[64] ôṁ siddhiḥ ‖ Nirgguṇaṁ[65] vyâpakaṁ śântaṁ[66] śivaṁ parama-kâraṇaṁ bhâva-grâhyaṁ paraṁ jyôtis=tasmai sad-Vra(bra)hmaṇê namaḥ ‖

---

[61] *ib.* plates XIII. XIV. and XV.

[62] According to the definition of the term *bisuâ*, given in Sir H. M. Elliot's *Supplementary Glossary*, Vol. II p. 26, the total of these figures should amount to 20, and this is actually the case in the grant D below. In the present grant, the total of the first figures following upon the word *visuâ* is only 18; and I conclude therefore that the second figure 2, indicates a subdivision of $\frac{1}{20}$ and that 12 of these minor portions were equal to $\frac{2}{20}$ or $\frac{1}{10}$ of the estate granted.

[63] From the impression.

[64] Expressed by a symbol.

[65] Metre, Ślôka (Anushṭubh).

[66] Instead of *śântaṁ*, the grants B and D have *nityaṁ*.

2 Dhyân[67]-aikatân[a*]-manasô vigata-praśâ(sâ)râḥ paśyanti yaṁ kim=api nirmalam=advitîyaṁ | jñân-âtmanê vighaṭit-âkhi-

3 la-va(ba)ndhanâya tasmai namô bhagavatê Purushôttamâya || Jayanti[68] Vâ(bâ)ṇâsura-mauli-lâlitâḥ kach-âsya-chûḍâma-

4 ṇi-chakra-chumvi(mbi)naḥ | sur-âsur-âdhîśa-śikhânta-śâyinô bhava-chchhidas=Tryamva(mba)ka-pâda-pânśa(ṁśa)vaḥ || Svasti[||*] Paramabha-

5 ṭṭâraka-mahârâjâdhirâja-paramêśvara - paramamâhêsa(śva)ra - śrîmad - **Vâmadêva** - pâd - ânudhyâta[69] |[70]-paramabhaṭṭâraka-mahârâjâdhirâja-paramêśvara-va(pa)-

6 ramamâhêśvara-**Trikaliṁgâdhipati**-nija-bhuj-ôpârjjit-âśvapati-gajapati - narapati - râjatray-âdhipati-śrîmat-**Trailôkyavarmmadêva**-kalyâ-

7 ṇa-vijaya[71]-râjyê |(||) Asty=anêka-guṇa-grâma-dhâma-ta[ru]ṇa-ramaṇa-vibhra[ma-bhra]maṇa-janita-śram-ôpaśram-âśram[72]-âsamâbhirâm-[â*]râma-rama-

8 ṇîyâ | vivu(bu)dha dig-vidita-vividha-dhanikajana-dhavalita-bhavana-tulita-gaganamaṁḍalâ | vâpî-kûpa-taḍâg-ôttuṁgadêvatâyatana-prap-â-

9 lôkan-âśvâsita-pântha-sârtha-viśrâma-bhûmiḥ | ghanavana-giri-gahvar-ôdara-darî-sarala-tarala-tâla-tamâla-saṁkulik[ri]ta-sî-

10 mântâ | vividha-vêda-dhvani-dhvasta-samasta-kalmashâ | **Kakarêḍikâ** nâma nagarî |(||) Êtasyâṁ nagaryyâṁ **Kaurava**-vaṁ[śa*]-samudbhûtô aśêsha-[73]guṇa-

11 gaṇ-âlaṁkṛita-śarîrô dêva-dvija-guru-su(śu)śr[û]sh-ânuraktaḥ | ativa śaktaḥ | Pârvvatîpati-pâdapaṁkaj-ârâdhan-aikachittaḥ | paramamâhê-

12 śvara-mahârâṇaka-śrî-**Dhâhilla**-nâm=âbhavat |(||) Tasya putrô vividha-vidyâ-vinôda-rasikaḥ | kâminîjana-mânasa-râjahaṁsaḥ

13 vidita-jaga[t=k]îrttiḥ | dalit-ârâti-varggaḥ | prakaṭita-saṁgrâma-sau(śau)ryaḥ | **Durjayô** nâma vâ(râ)jyapâlô[74] babhûva | (||) Asy=âtmajô dôrdaṇḍa-

14 ...hm-ârjjita-bhûpa-bhûmi-vibhûty-a[dbhu]ta-[vi]jñâna-vilâsô durddhara-ripu-pa(va)na-dahana-dâvânalô | lalita-yuvatijan-ânaṁda-maṁdiraḥ | prauḍha-

15 turag-ava(pa)gâ-va[lg]âvagâhana-viḍaṁvi(mbi)ta-Rêvaṁtaḥ |[75] mahârâ[ṇa]ka-śrî-**Shôja-varmmadêvô** dina[kri]d=iv=âbhavat || Êtad-âtmajô nija-vi-

16 kram-âkrânta-bhûmaṁḍalaḥ | tu(mu)gdha-ramaṇî-vadan-âraviṁda-makaraṁda-[ma]dhukaraḥ | dîn-ânâtha-manôrath-ôddharaṇa-dhuraṁdharaḥ | sadâ Śiva-

17 ...i-ânuraktaḥ | mahârâṇaka-śrî-**Jayavarmma**-nâm=âsîta(t) || Asya sûnuḥ sakala-kalâkva(ka)lita-tatvaḥ[76] | pratidalita-dṛipt-âri-va-

18 rgaḥ | pratidina-dîyamâna-dâna-gîta-kîrttiḥ | Pâr[vva]tîramaṇa-charaṇâraviṁda-shatpadaḥ | mahârâṇaka-śrî-**Vatsarâjô** [ba]-

19 bhûva || Êtat-putraḥ samabhavat=sajjan-ânaṁda-kârî | vidvajjan-ôpanîta-nîtiśâstr-âchâra-charî | saundarya-darp-ôddhata-Kaṁda-

20 rpa-darp-âpahârî | karatal-âkalit-âdhijy-ôddaṁḍa-kôdaṁḍa-chaṁḍim-âkhaṁḍit-ârâti-saṁghaḥ | kâya-vâk-chitt-ârâdhita-

21 Saṁkara-charaṇa-yugal-âvanamrîkṛit-ôttamâṁgaḥ || mahârâṇaka-śrî-**Salashanavarmmadêvô** babhûva | (||) Êtasmâj=jâtaḥ sa-

22 kala-jana-nayan-ânaṁda-kârî | dikchakr-âkramaṇ-ôpanîta-tîrth-ârthi-pathika-s[â*]rtha-[77] viśrâma-śaṁsî | paṁḍita-vṛiṁda-sâna[ṁ]da-pra-

---

[67] Metre, Vasantatilakâ

[68] Metre, Vaṁśastha.—The verse is taken from Bâṇa's *Kâdambarî*, Bo. Ed., page 1, v. 2. In the second Pâda the proper reading is *Daśâsya*, *i.e.* Râvaṇa, not *kachâsya*, nor, as the grant D. has it, *kivâsya*.

[69] Originally °*dhyât*.

[70] Here and in other places below, which it is unnecessary to point out separately, the sign of punctuation is superfluous.

[71] Originally *vijaya*.

[72] The grant D omits this *âśram*; and I believe that *śram-ôpaśram-âsamâbhirâm-ârâma* is the right reading.

[73] Read °*śêsha-*.

[74] The grant D also has *râjyapâlô*.

[75] In the grant D the epithet *prauḍha-turag-âvagâhana-viḍaṁvi(mbi)ta-Rêvantaḥ* is applied to the chief Kîrtivarman.

[76] This is the reading also of the grant D., but as that grant, below, in reference to another chief, has the epithet *sakala-kalô-kalita-kalêvaraḥ*, the right reading here may be *sakala-kalâ-kalita-tanuḥ* (not *-tattvaḥ*).

[77] This word might be read *sarvva*; but the grant D has *sârtha*.

23 kaṭita-guṇa-grâma-yôgya-dêya-dâyî । sat-pâtr-ôpanîta-nîtisûtra-vyavahâra-karṇṇadhâraḥ । vidagdha-vanitâ-parimalita-

24 vividha-surata-vyâpâraḥ । karpûra-dhûli-dhavalita-pûgaphala-[pha ॥(?)li]-[78]satat-âpûrita-vadana-vistâraḥ । saṁgrâm-âṅgaṇa-saṁbhṛi(hṛi ?)ta-Śanmu-

25 kha-[79]darp-ôddhata-vairi-varggaḥ । mahârâṇaka-śrî-**Harirâjadêvô** Harir=iv=âsît ॥ **Êtad**-âtmajaḥ sakala-śâstra-śastra-gîta-pari-

26 jñâta-tat[t*]vaḥ । Parvvataputrikâ-priya-charaṇakamala-samârâdhana-tatparaḥ । gô-hiraṇya-dhânya-ratna-bhûmi-dân-ôdaka-

Second plate; first side.

27 prakhyâ(kshâ)lita-vâmêtara-kara-prakôshṭhaḥ । dôrddaṇḍa-chaṇḍimâ(ma)-vikhaṁḍita-ripu-muṁḍa-maṁḍalî-vimaṁḍita-Chaṁḍikâ-charaṇa-yugalaḥ । kâminî-ku-

28 cha-kalasa-kuṁkum-âṁkita-vakshaḥsthalaḥ । mahârâṇaka-śr[î]-**Kumavapâladêvô**[80] vijayi ।(॥) **Vadharâ**-[81]pattalâyâṁ । **Rêhî**-grâma-nivâsina[ḥ] samasta-pra-

29 jâ-lôkân=samâjñâpayati vô(bô)dhayati cha । Grâmô=ya[ṁ] mayâ chatur-âghâṭa-viśuddha uttarasyâṁ diśi(śi) Haladuâ sîmâ । pûrvvasyâṁ diśi(śi) Pa[vâ]pa-[82]

30 palâkasya pippalaṁ[83] sîmâ । dakshiṇasyâṁ diśi(śi) Naṁdâjhari madhûkas=cha su(śi)mâ । paśchimâyâm diśi(śi) Vaḍa[spa]mâ[ga]likâ sîmâ । madhya-grâ-

31 mê ḍimarasihâna[uga?]ṁ । âmrâś=cha । vâpî madhûkâś=cha । tathâ grâmê pushkariṇî-chatvârakaṁ । sajalasthala-sâṁvra(mra)-[ma]dhûka-sa-garttôshara-nidhi-

32 sa-lavaṇa-tṛiṇa-pakshi-mi(ni)kshêpadhana-gôcharaparyantaḥ । Mauṁḍilya-[84]gôtrêbhyaḥ । Mauṁḍilya-Âṁgirasa-Vâ(bâ)rhaspatya-triḥ[85]pravar[ê]bhyaḥ

33 । yâyu(ju)rvvêdibhyaḥ । vêda-vêdâṁga-pâragêbhyô brâhmaṇêbhyaḥ । svahâ-svadhâ-dâvapûj-âdi-shaṭkarmma-nishṭhêbhyaḥ । ṭhakkura-śrî-Sêlha-prapautrêbhyaḥ

34 ṭhakkura-śrî-Lâhaḍa-pautrêbhyaḥ । râuta-śrî-Aṇa[va]pâla-putrêbhyaḥ । râuta-śrî-Sâṁgê । Sûhaḍa । Mahâita । Ramasiha । Sômîvî-

35 jhû । râuta-śrî-Sâvantaśarmmaṇêbhyaś=cha । **saptanavaty-adhikê dvâdaśa-śata-saṁvatsarê aṁkê=pi 1297 Kârttikyâ[ṁ]** snâtvâ Śiva-

36 sannidhau mâtṛipitrôr[86]=âtmanaś=cha puṇya-yaśô-vivṛiddhayê sâ(śâ)sanatvê vra(pra)datta iti ।(॥) Mad[87]-vaṅsa(ṁśa)jâḥ para-mahîpati-vaṁsa(śa)jâ yê yê

37 ch=âpi dharma-niratâ bhuvi bhâvi-bhûpâḥ । tê pâlayantu mama dharmam=idaṁ samastaṁ têshâṁ virachitô[88] mayâ=ñjalir=êsha mûrddhni [॥*]

38 Yâtê[89] yânti mahîbhujaḥ kshitim=imâṁ bhûyô=pi yâsyanti tê । nô yâtâ na cha yâti yâsyati kadâ kên=âpi sârddhaṁ

39 dharâ । Râmô Dâsa(śa)rathî Ragh-ûttama-k[u*]lê saṁyâchatê bhûmipân matv=êdaṁ vasudh-âdhipaiḥ para-[kri][90]tâ lôpyâ na sa[t-kî-]

40 rttayaḥ ॥ Va(ba)hubhir[91]=vvasudhâ bhuktâ râjabhiḥ Sagar-âdibhiḥ । yasya yasya yadâ bhûmis=tasya tasya tadâ phalaṁ ॥ Karttuḥ[92]

41 svayaṁ kârayituḥ parêṇa chittê[na] tushṭê[na] tath=ânumantuḥ । sâhâyya-karttuś=cha śubh-âśubhâni[93] tulyaṁ phalaṁ vêda-vidô

42 vadanti ॥ Bhûmiṁ[94] yaḥ pratigṛinhâ(hṇâ)ti yaś=cha bhûmiṁ prayachchhati । ubhau tau puṇya-karmâṇau niyatau svargga-gâminau ॥ Sva-

---

[78] The *aksharas* in these brackets appear to have been struck out. [79] Read *Shaṇmukha, i.e.* Kârttikêya.

[80] I believe the name of the chief to have been *Kumarapâla* or *Kumârapâla*, but the mistake in the most important name of the whole inscription appears extraordinary especially as the inscription otherwise contains comparatively few mistakes. *Va* is engraved for *ra* also in *°rapâlî*, line 13

[81] This word might be read *Vavarâ*, but D has distinctly *Vadharâ*.

[82] Here and in the following two lines there are several expressions which I am unable to explain. I have enclosed in square brackets every *akshara*, about the reading of which there can be any doubt.

[83] Or *pippalam*. According to the Dictionaries, *pippala*, as a masc., means 'the holy fig-tree,' and, as a neut., 'the berry of that tree.' In the present instance, *pippala* or *pippala* is perhaps related to *pipîla*, *pipîlaka*, *pipîlikâ*, 'an ant,' and may mean, therefore, 'an ant-hill.'

[84] This word is, here and in the sequel, particularly clear in the impression, and it is not *Kauṇḍinya*. I cannot anywhere find a Mauṇḍilya *gôtra*. Maudgalya we have, *e.g.*, in the *Âśvalâyana-śrautasûtra* xii, 12, 1.

[85] Read *tripra°*. [86] Read *mâtâpitrôr*.

[87] Metre, Vasantatilakâ. [88] Read *mayâ virachitô*.

[89] Metre, Śârdûlavikrîḍita.

[90] The *akshara* in brackets may be *hri*.

[91] Metre, Ślôka (Anushṭubh). [92] Metre, Indravajrâ

[93] The grant D has *śubh-âśubhânâm*

[94] Metre, Ślôka (Anushṭubh); and of the next two verses.

43 dattâṁ para-dattâṁ vâ yô harêt(ta) vasu[ṁdha]râṁ । sa vishyâ(shṭhâ)yâṁ krimir=bhûtvâ pitṛibhiḥ saha majjati ॥ Gâm=êkâṁ svarṇṇam=êkaṁ
44 mu(nn?) bhûmêr=apy=êkam=aṁgulaṁ । haran=narakam=âyâti yâvad-âhûtasaṁplavaṁ ॥ Râjyaṁ[95] yêna śiśôr=akâri nṛipatêḥ prauḍhaṁ ya-
45 śô nirmalaṁ yô vâ dharma-kathâ-ratêr=anudinaṁ viśrâma-bhûmiḥ paraṁ(râ) । kâyasthasya vibhûtayaḥ pratidinaṁ yasy=ârthi-
46 nê nirmitâ[s*?]= tên=âkâri vu(bu)dhêna tâṁvra(mra)kam=idaṁ śrî-Muktasiṁhêna vai ॥ Likhitaṁ[96] Mâlâdharêṇ=aitan(t)=taṁvra-(mra)kaṁ pu-
47 ṇya-varddhanaṁ । sukha-santâna-siddhyarthaṁ śubhaṁ Śrîpati-sûnunâ ॥ Sômalla-prapautrêṇa pautrêṇa Ma-
48 hîpatêḥ । putrêṇa Śrîpatês=tâṁvra(mra)ṁ likhitaṁ Mâlâdharêṇa vai ॥ Utkîrṇṇaṁ śilpinâ A-
49 jayasiṁhêna Pratâpasiṁhên=âpi ॥ Upârjjitâṁ râuta-Sâvantêna ॥

Second plate; second side.

50 Râuta-Sâvantasya visuâ [5] । 2
51 Râuta-Sâṁgêkasya visuâ 3 । [2]
52 Râuta-Sûhaḍakasya visuâ 3 । 2
53 Râuta-Mahâitakasya visuâ 3 । 2
54 Râuta-Ramasihakasya visuâ 3 । 2
55 Râuta-Vîjhûkasya visuâ 1 । 2

D.—Copper-Plate Grant of the Mahârâṇaka Harirâjadêva. The (Vikrama) year 1298.

This inscription, again, is on **two plates,** of which the first is inscribed on one side only, and the second on both sides. The arrangement of the plates is the same as in the case of grant C. The first plate measures about 11½" by 7⅝"; and the edges of it are turned up all round into a rim about ¼" high, within which lies the second plate, measuring about 11¼" by 7⅛". In addition to this, thin strips of copper about ⅜" broad are fastened by rivets all round the edges on the front side of the second plate. The inscription is well preserved: and there are only a few letters the actual reading of which is at all doubtful in the impression.—There is a **ring-hole** in the lower part of the first plate: and another in the upper part of the second. But the ring, with any seal that may have been attached to it, is not now forthcoming.—The **weight** of the two plates is 174½ tolas.—The average **size of the letters** is about ¼". The **characters** are Dêvanâgarî: and the **language** is Sanskṛit. Both the writer and the engraver have done their work carelessly, and the inscription therefore contains a rather large number of mistakes of grammar and orthography.

As the inscription, down to line 28, in the introductory verses and the epithets applied to the town Kakarêḍikâ and to the several chiefs mentioned, and also in the imprecatory verses, from line 36 to line 45, agrees very closely with the inscription C., it would be useless to publish its full text. The extracts which will be given below, contain everything which may be at all important.

Beginning with the words "Ôṁ, success!" and the same verses in honour of Brahman, Purushôttama, and Tryambaka, which occur at the beginning of the inscription C., followed by the word *svasti*, the inscription refers itself, in lines 4 and 5, to "the reign of victory of the *Mahârâja*, the illustrious **Trailôkyamalla,** endowed with the three kingly titles commencing with *paramabhaṭṭâraka*[97] (i.e. *paramabhaṭṭâraka mahârâjâdhirâja paramêśvara*)"; and the inscription is **dated,** in line 36, "in the month Mâgha, the year 1298," expressed by decimal figures only, and corresponding, as a year of the Vikrama era, to A.D. 1240-41. As this date is only one year later than that of the inscription C., I follow Sir A.

[95] Metre, Śârdûlavikrîḍita.

[96] Metre, Śloka (Anushṭubh), and of the following verse. Both verses offend against the metre.

[97] See Mr. Fleet's note in *Journal Bombay Branch Roy. As. Soc.*, Vol. XVI p. 115, and *Archæol. Survey of India*, Vol. XI. plate xxxviii, inscription from the pillar at Bêlkhara.

Cunningham[98] in regarding the prince **Trailôkyamalla** to be the **Chandêlla Trailôkyavarmadêva** of that inscription.

In lines 5-18, our inscription furnishes the same genealogical list of the *Mahârâṇakas* of **Kakarêḍikâ,** from **Dhâhilla** to **Vatsarâja,** which is contained in the inscription C. From lines 18-29 we learn that Vatsarâja had two sons, the *Mahârâṇaka* **Kîrtivarman,** and the *Mahârâṇaka* **Salashaṇavarmadêva;** and that the latter again had two sons, the *Mahârâṇaka* **[V]âha[ḍa] varmadêva,** and the *Mahârâṇaka* **Harirâjadêva.**

In lines 29-36, the last of these chiefs, **Harirâjadêva,** informs the people concerned that, at the time mentioned, he gave the village of **Agasêyi,** in the **Vadharâ** *pattalâ* (mentioned also in the inscription C), to the *Râutas* Sâṅgê, Sûhaḍa, Mahâditya, and Sâmanta, sons of the *Râuta* Aṇavê, and to Râmasiṁha, son of Kiritû, son's sons of the *Ṭhakkura* Lâhaḍa, Brâhmaṇs of the Mauṇḍilya *gôtra,* and whose three *pravaras* were Mauṇḍilya, Âṅgirasa, and Bârhaspatya. The estate granted is stated to comprise 20 *cisuâ,* of which 2 were given to Sâṅgê, 4 to Sûhaḍa, 3 to Mahâditya, 8 to Sâmanta, and 3 to Râmasiṁha. With the exception of Vîjhûka, who is omitted here, the donees are the persons mentioned as donees in the grant C.

Lines 36-45 contain the same benedictory and imprecatory verses which are given in C, only differently arranged: and lines 45-48 add that this *tâmraka* or copperplate grant was written by the *karaṇika,* or writer of legal documents, the *Ṭhakkura* Udayasiṁha, son of Tanapasiṁha, grandson of Kamalasiṁha, and great grandson of Sômalla, born in the family of the *Mahâṭhakkura* Dhârêśvara; and engraved (*unmilitam*) by the son of Kûkêṁ, the grandson of the worker in iron Gâṅgê.

The difficulty presented by this inscription is that it purposes to record a grant, made in the [Vikrama] year 1298 by the chief Harirâjadêva, while, from the preceding inscription, it would appear that Harirâjadêva already in 1297 had been succeeded by his son Kumârapâladêva. If the document D be genuine and its date correctly given, it might possibly be suggested that Harirâjadêva was alive in 1297-1298, and had permitted his son, Kumârapâladêva to share in the management of his state, or made over to him a portion of his dominions. But such a suggestion could hardly be reconciled with the statement in the grant C, according to which "the reign of the child-prince (Kumârapâladêva) was made a prosperous one" by Muktasiṁha, and which appears distinctly to intimate that Kumârapâladêva succeeded to the government of Kakarêḍikâ, while he was still a child.

The inscriptions C and D furnish the following genealogical list of the **Mahârânakas of Kakarêḍî:**

1. **Dhâhilla.**
2. **Durjaya.**
3. **Shôjavarman.**
4. **Jayavarman.**
5. **Vatsarâja.**

6. Kîrtivarman. **7. Salashaṇavarman.**

8. [V]âha[ḍa]varman. **9. Harirâja.** [Vikrama S. 1298.]

10. Kumârapâla. [Vikrama S. 1297.]

Of these, 4, 5, and 6 are mentioned also in the inscription A., with the date [Chêdi-] Saṁvat 926 = A.D. 1175 for 6, Kîrtivarman.—And the inscription B. has the names 1, and 4—7, (with the date [Vikrama-] Saṁvat 1253 = A.D. 1195 for 7, Salashaṇavarman, or Salakhaṇavarman, or Salakshaṇavarman), while, in the place of 2 and 3, it has the three names **Vâjûka, Dandûka,** and **Khôjûka.** Of these, I feel no hesitation in identifying Khôjûka with 3, Shôjavarman, and I think it probable that Vâjûka and Dandûka were two brothers, of whom one was also named Durjaya.

EXTRACTS FROM THE TEXT.[99]

First plate.

1 Ôṁ siddhiḥ ‖[100] . . . .

4 . . . . ‖ Svasi(sti) ‖ Paramabhaṭṭârak-êtyâdi-râ-

[98] *Archæol. Survey of India,* Vol. XXI p. 148.

[99] From the impression.

[100] Here follow the same three verses in honour of Brahman, Vishṇu, and Śiva, which are contained in the grant C.

5 j[â*]valî-tray-ôpêta-mâ(ma)hârâ[śa(ja)]-śrî-**Trêlâkyamalla**[101]-vijaya-râjyê ॥ As[t*]y= . .
9 . . . . **Kakarêḍikâ** nâma nagarî ॥ Ê-
10 tasyâṁ nagaryâṁ **Kaurava**-vaṁsa(śa)-samudbhûtô . . . .
11 . . . . mahârâṇaka-śrî-**Dhâhilla-nâ-**
12 m=âbhavata(t) ॥ Tasya putrô . . . .
13 . . . **Durjjayô** nâma vâ(râ)jyapâlô babhûva ॥ Nra(A)sy=âtmajô . . . . .
14 . . . . mahârâṇaka-śrî-**[Shô]javarmmadêvô** bhavat ॥ Ê
15 tad-âtmajô . . . .
16 . . . . mahârâṇaka-śrî-**Jayavarmma**-nâm=âsît ॥ Asya sûnuḥ . . . .
18 . . . mahârâṇaka-śrî-**Vatsarâjô** babhûva ॥ Êtasya putraḥ . . . .

Second plate; first side.

20 mahârâṇaka-śrî-**Kîrttivarmma**-nâm=âbhavat ॥ Sa(A)sya bhrâtâ . . . .
23 . . mahârâṇaka-śrî-**Salashaṇavarmmadêvô** babhûva ॥ Asya sûnuḥ . . . . .
24 . . . . . . mahârâṇaka-śrî-**[V]âha[ḍa]**[102]**varmmadêvaḥ** saṁjâtaḥ ॥ Mû(A)sya bhrâ-
25 tâ . . . .
28 . . . . ma-
29 hârâṇaka-śrî-**[Har]**[103]**irâjadêvô** vijayî ॥ **Vadharâ**-[104]pattalâyâṁ । **Agasêyi**-grâmâ(ma)-nivâsinaḥ pra-
30 jâ-lôkân=anyâṁś=cha samâjñâpayanti(ti) vô(bô)dhayanti(ti) cha ॥ Grâmô=yaṁm=[105] asmâbhiś=chavu(tu)râghâṭa-visu(śu)ddha[ḥ*] sajala-
31 [sthala]-sâ[ṁvra(mra)]madhûka-sagarttôshapa(ra)-nidhimi(ni)kshêp-âkâ[ś]ôtpatti-sa(kha)-ni-mô(gô)charaparyantaḥ । Mai(mau)ṁḍilya-gô[tr]êbhyaḥ
32 [M]auṁḍilya- । Âṅgirasa- । Vârahashatya[106]-tripravarêbhyaḥ । ṭha[107] । Lâhaḍa-pautrê-bhyaḥ 1 râ[108] । Mû(A)ṇavê-putrêbhya[ḥ*]
33 râ । Sâṁgê vi[109] 2 râ । Sûhaḍa vi [4] râ । Mahâditya vi 3 râ । Sâmanta vi 8 râ । Kiritû-putra-Râ-
34 [ma?]siṁha vi 3 [sar]vaṁ vi 20

Second plate; second side.

35 [êbhy]ô vrâ(brâ)hmaṇêbhyô grâmô=yaṁ sâ(śâ)sanatvê pradattêti[110] matvâ bhâga-bhôga-kara-pravâṇêkar[111]-âdikaṁ sarvvaṁ dâta-
36 vyam=iti । **Saṁvata(t) 1298**[112] **Mâghê mâsi** snâ[t*]vâ Śivaṁ prapûjya pradattam=itti(ti) ॥ Bhavanti ch=âtra puṇya-ślôkâḥ ॥[113] . . . .
45 . . . . Śrîmat-karaṇika-varêṇa
46 mahâṭhakkura-śrî-[Dhâ]rêśvar-ânvay-ôdbhavênna(na) ṭhakkura-śrî-Sômalla-prapautr[ê*]ṇa ṭhakkura-śrî-Kamalasinha(ṁha)-
47 pautrêṇa ṭhakkura-śrî-Tanapa(?)siṁhasya putrêṇa ṭhakkura-śrî-Udayasiṁhêna tâmrakam=idam=al[êkh]i ॥
48 Ayaskâra-Gâṁgê-pautrêṇa Kûkêṁ-putrêṇ=ônmîlitam=iti ॥

FOLKLORE IN SOUTHERN INDIA.

BY S. M. NATESA SASTRI.

No. XXV.—(*Concluded from p. 205.*)

Thus thinking, the eight thieves ranged themselves at the side of the four legs of the cot, and, without the slightest shaking, removed the cot with the sleeper on it outside the town Their joy in thus having brought away their enemy was very great, and, not fearing for the

[101] Read *Trailôkyamalla-*.
[102] The letters in brackets are doubtful
[103] I believe, the letters here put in brackets are quite certain. The epithets applied to the chief are almost entirely the same as those applied to Harirâjadêva in the grant C
[104] In the grant C this word might be read *Vararâ-*.
[105] Read *syam=*.
[106] Read *Bârhaspatya.*
[107] *i.e. ṭhakkura*
[108] *i.e. râuta.*
[109] *i.e visuâ.*
[110] Read *pradatta iti*
[111] Read *pravaṇikar-*, and compare *ante* Vol. XV. p 10, note 58.
[112] The last figure appears to be undoubtedly 8, as it was read by Sir A. Cunningham; but the figure 8 is differently formed above, in line 33.
[113] Here follow the same benedictory and imprecatory verses, which are found in the grant C, but differently arranged

safe custody of their prisoner, they marched to their cave. Meanwhile Chandralêkhâ was not idle on the cot. The way to the jungle was through a long and fine avenue of mango trees. It was the mango season, and all the branches were hanging with bunches of ripe and unripe fruit. To make up for her weight on the cot she kept plucking mango bunches and heaping them on it, and as soon as a quantity which she thought would make up her weight was upon the cot, she without the slightest noise took hold of a branch and lifted herself up from off it. The thieves walked on as before, the weight on their heads not apparently diminishing, leaving our heroine safely seated on a mango branch to pass the few remaining *ghatikâs* of that anxious night there. The thieves reached their cave just at daybreak, and when they placed their burden down their eyes met only bunches of ripe mangoes, and not the lady they looked for. "Is she a woman of flesh and blood or is she a devil?" asked the chief of the next in rank.

"My lord! She is a woman fast enough, and if we search in the wood we shall find her," replied he, and at once all the eight robbers after a light breakfast began to search for her.

Meanwhile the morning dawned upon Chandralêkhâ and let her see that she was in the midst of a thick jungle. She feared to escape in the daytime as the way was long, and she was sure that the robbers would soon be after her. So she resolved to conceal herself in some deep ambush and wait for the night. Before she left the cot for the mango branch she had secured in her hip the small knife she had made for herself out of the robbers' rod and the purse containing the materials for chewing betel; and near the tree into which she had climbed she saw a deep hollow surrounded by impenetrable reeds on all sides. So she slowly let herself down from the tree into this hollow, and anxiously waited there for the night.

All this time the eight thieves were searching for her in different places, and one of them came to the spot where Chandralêkhâ had sat in the tree, and the dense bushes near made him suspect that she was hidden there; so he proceeded to examine the place by climbing up the tree. When Chandralêkhâ saw the thief on the tree she gave up all hopes of life. But suddenly a bright thought came into her mind, just as the man up above saw her. Putting on a most cheerful countenance she slowly spoke to him: "My dear husband, for I must term you so from this moment, since God has elevated you now to that position, do not raise an alarm. Come down here gently, that we may be happy in each other's company. You are my husband and I am your wife from this moment."

So spoke the clever Chandralêkhâ, and the head of the thief began to turn with joy when he heard so sweet a speech, and, forgetting all of her previous conduct to himself and his brethren, he leapt into the hollow. She welcomed him with a smiling face, in which the eager heart of the robber read sincere affection, and gave him some betel-nut to chew and chewed some herself merrily. Now redness of the tongue after chewing betel is always an indication of the mutual affection of a husband and wife among the illiterate of Hindû society. So while the betel-leaf was being chewed she put out her tongue to show the thief how red it was, letting him see thereby how deeply she loved him: and he, to show in return how deeply he loved her, put out his tongue too. And she, as if examining it closely, clutched it in her left hand, while with her right hand in the twinkling of an eye **cut off the tongue and nose of the robber**, and taking advantage of the confusion that came over him she cut his throat and left him dead.

By this time evening was fast approaching, and the other seven robbers, after fruitless search, returned to their cave, feeling sure that the eighth man must have discovered Chandralêkhâ. They waited and waited the whole night, but no one returned, for how could a man who had been killed come back?

Our heroine, meanwhile, as soon as evening set in, started homewards, being emboldened by the occasion and the circumstances in which she was placed. She reached home safely at midnight and related all her adventures to her mother. Overcome by exhaustion she slept the rest of the night, and as soon as morning dawned began to strengthen the walls of her bedroom by iron plates. To her most useful pocket-knife she now added a **bagful of powdered chillies**, and went to bed, not to sleep, but to watch for the robbers. Just as she expected, a small hole was bored in the east wall of her

bedroom, and one of the seven robbers thrust in his head. As soon as she saw the hole our heroine stood by the side of it with the powder and knife, and with the latter she cut off the nose of the man who peeped in and thrust the powder into the wound. Unable to bear the burning pain he dragged himself back, uttering "*ṅa, ṅa, ṅa, ṅa*," having now no nose to pronounce properly with. A second thief, abusing the former for having lost his nose so carelessly, went in, and the bold lady inside dealt in the same way with his nose, and he too, dragged himself back in the same way, calling out "*ṅa, ṅa, ṅa, ṅa*." A third thief abused the second in his turn, and going in lost his nose also. Thus all the seven thieves lost their noses, and, fearing to be discovered if they remained, ran off to the forest, where they had to take a few days' rest from their plundering habits to cure their mutilated noses.

Chandralêkhâ had thus three or four times disappointed the thieves. The more she disappointed them the more she feared for her own safety, especially as she had now inflicted a lifelong shame on them. "The thieves will surely come as soon as their noses are cured and kill me in some way or other. I am, after all, only a girl," she thought to herself. So she went at once to the palace and reported all her adventures with the eight robbers to the prince, who had been her former class-mate. The prince was astonished at the bravery of Chandralêkhâ and promised the next time the robbers came to lend her his assistance. So every night a spy from the palace slept in Chandralêkhâ's house to carry the news of the arrival of the robbers to the prince should they ever go there. But the robbers were terribly afraid of approaching Chandralêkhâ's house after they came to know that she had a knife made out of the boring-rod. But they devised among themselves a plan of inviting Chandralêkhâ to the forest on the pretence of holding a *nâch* and sent to her house a servant for that purpose. The servant came, and, entering Chandralêkhâ's house, spoke thus to her: "My dear young lady, whoever you may be, you have now a chance of enriching yourself. I see plainly from the situation of your house that you are one of the dancing-girls' caste. My masters in the forest have made a plan to give a *nâch* to their relatives on the occasion of a wedding which is to take place there the day after to-morrow. If you come there they will reward you with a *karôr* of *mohars* for every *nimisha* (minute) of your performance." Thus spoke the servant, and Chandralêkhâ, knowing that the mission was from the thieves, agreed to perform *nâch*, and, asking the man to come and take her and her party the next morning to the forest, sent him away.

In order to lose no time she went at once to the prince and told him all about the *nâch*. Said she, "I know very well that this is a scheme of the thieves to kill me, but before they can do that we must try to kill them. A way suggests itself to me in this wise. To make up a *nâch* girls' party more than seven persons are required. One must play the drum; a second must sound the cymbals; a third must blow upon the *nâgasvara* pipe, etc., etc. So I request you to give me seven of your strongest men to accompany me disguised as men of my party, and some of your troops must secretly lie in ambush in readiness to take the robbers prisoners when a signal is given to them."

Thus Chandralêkhâ spoke, and all her advice the prince received with great admiration. He himself offered to follow her as her drummer for the *nâch*, and he chose six of the ablest commanders from his army, and asked them to disguise themselves as fiddlers, pipers, etc. and he directed an army of a thousand men to follow their footsteps at a distance of two *ghaṭikâs'* march, and to lie in ambush near the place where they were going to perform the *nâch*, ready for a call. Thus everything was arranged and all were ready by the morning to start from Chandralêkhâ's house.

Before the third *ghaṭikâ* of the morning was over, the robbers' servant came to conduct Chandralêkhâ with her party to the forest where the prince and six of his strongest men disguised as her followers, were waiting for him. Chandralêkhâ with all her followers accompanied him, but as soon as she left her house a spy ran off to the army, which, as ordered by the prince, began to follow her party at a distance of two *ghaṭikâs*.

After travelling a long way Chandralêkhâ and her party reached the *nâch* pavilion at about five *ghaṭikâs* before sunset. All their hosts were without their noses, and some still had their noses bandaged up. When they saw

that Chandralêkhâ's followers had a fine and prepossessing appearance, even the hard hearts of the robbers softened a little.

"Let us have a look at her performance. She is now entirely in our possession. Instead of murdering her now, we will witness her performance for a *ghaṭikâ*," said the robbers to each other; and all with one voice said "agreed," and at once the order for the performance was given.

Chandralêkhâ, who was clever in every department of knowledge, began her performance, and by the most exquisite movement of her limbs held the audience spell-bound, when suddenly *tâ tai, tôm* clashed the cymbals. This was the signal for the destruction of the robbers, as well as the sign of the close of a part of the *nâch*. In the twinkling of an eye the seven disguised followers of the dancing-girl had thrown down the thieves and were upon them. Before the servants of the robbers could come to the help of their masters the footsteps of an army near were heard, and in no time the prince's one thousand men were on the spot and took all the robbers and their followers prisoners.

So great had been the ravages of these robbers in and round Kaivalyam that, without any mercy being shown to them, they and their followers were all ordered to be beheaded, and the **prince** was so much won over by the excellent qualities of Chandralêkhâ that, notwithstanding her birth as a **dancing girl**, he regarded her a gem of womankind and **married her**.

"Buy a girl in a *bâzâr*" *(kaṇṇiyai kaḍaiyil kol)* is a proverb. What matter where a girl is born provided she is chaste! And Chandralêkhâ by her excellent virtue won a prince for her lord. And when that lord came to know of the real nature of his teacher, who was also the teacher of Chandralêkhâ, he banished him from his kingdom, as a merciful punishment, in consideration of his previous services.

CORRESPONDENCE.

AN ORIGIN FOR THE WORD "GIPSY."

SIR.—Numerous derivations of this word have been suggested from time to time; some very far-fetched.

In Appendix A to Vol XIII., Part II. *Bombay Gazetteer*, p 711 Mr. James M. Campbell has given an able summary of nearly all the then available information regarding the origin of the **Gipsies**, and his notes will serve as a valuable index for those who wish to study the subject minutely. But he, as well as other writers, appears to have overlooked one origin of the name **Gipsy**, which, if well-founded, is far more probable them any other which has yet been published. The derivation I refer to is contained in the following paragraph, which I quote from the *Transactions* of the Bombay Geographical Society, Vol. VI. page 89 :—

"The origin of the **Gypsies of Europe** has been ascribed, with different degrees of probability, by various persons, to Egypt, India and the Western Coast of the Red Sea; but it appears to have been overlooked that the **Amharic** name for Egypt is still **Giptz**, and for the natives of that country **Giptzi**. The same people (the Gypsies) are called Zingaros, or Zinganos by the Italians. The Persians apply the term Zangi to all the natives of the north-east portion of Africa, excepting the Abyssinians; thus, it is not improbable that these people emigrated from the Abyssinian Coast, acquired the name Gypsey or Giptzi from having entered Europe through Egypt, and that they were called Zinganos by the Italians and people of the adjacent countries, from the Persian name Zangi, an Ethiopian, an inhabitant of North-Eastern Africa."[1]

J. S. KING.

MISCELLANEA.

CALCULATIONS OF HINDU DATES.

No. 13.

In the **Muḍyanûr copper-plate grant of the Bâṇa king Srîvadhûvallabha-Malladêva-Nandivarman**, from the Kôlâr District in Maisûr, published by Mr. Rice in this Journal, Vol XV. p. 172ff., the date line 23ff. from the published text[2] runs—êka-shashty-uttara-dvaya-śatê Śakâbdah pravardhdhamân-âtmanah trayô-viṁśati[3] varttamâna-Vilambi-saṁvatsarê Kârttik-

[1] *Remarks on the North-East Coast of Africa, and the various Tribes by which it is inhabited*. By Lieut. C. P. Rigby, 16th Regt. Bo. N. I., March 1848.

[2] I have not my ink-impressions at hand to refer to. But I satisfied myself at the time that there is at least no substantial error in the published reading.

[3] Read [illegible]

âśukla-pakshê trayôdaśyâm Sômavarê Aśvinyâm[4] nakshatrê,—" in the Saka year two hundred, increased by sixty-one, in his own augmenting twenty-third year, in the **Viḷambin samvatsara, which is current**; in the dark fortnight of Kârttika; on the thirteenth *tithi*, **on Monday**; under the Aśvinî *nakshatra*.

This gives us, for calculation, Śaka-Saṁvat 261, current according to the literal meaning of the text, the **Vilambin samvatsara** of the Sixty-Year Cycle (of Jupiter), the month **Kârttika** (ordinarily October-November); the dark fortnight; the thirteenth *tithi* or lunar day; Sômavâra, or **Monday**, and the Aśvinî *nakshatra*.[5]

As, however, some objection may be taken to the use of *aśukla* to designate the dark fortnight, and it may be urged that we should correct *Kârttik-âśukla* into *Kârttika-śukla*, the calculation will be made also for the same *tithi* in the bright fortnight. And the *tithi* in the dark fortnight will be calculated according to both the *Pûrṇimânta* and the *Amânta* arrangements.

By the Southern System of the Sixty-Year Cycle, the **Vilambin samvatsara** was coincident with Śaka-Saṁvat 261 current (A.D. 338-39); or, as shown in the Tables, 260 expired. And for this year, with the basis of Śaka-Saṁvat 260 expired, the results, by Prof. K. L. Chhatre's Tables are—(1) the *Pûrṇimânta* Kârttika kṛishṇa 13 ended on Thursday, the 28th September, A.D. 338, at about 21 *ghaṭis*, 11 *palas*, after mean sunrise at Bombay;—(2) Kârttika śukla 13 ended on Friday, the 13th October, at about 13 *gh.* 42 *p.*;—and (3) the *Amânta* Kârttika kṛishṇa 13 ended on Friday, the 27th October, at about 15 *gh.* 28 *p.*

If it should be argued that **the given year** Saka-Saṁvat 261 is to be taken **as the expired year**, in [illegible] the given date belongs to Śaka-Saṁvat 262 current (A.D. 339-40), and the name of [illegible] *samvatsara* must be altered from Vilambin into Vi[illegible]—(1) the *Pûrṇimânta* Kârttika kṛishṇa 13 ended on Wednesday, the 17th [illegible] at about 2[illegible] *gh.* 56 *p.*;—(2) Kârttika [illegible] 13 ended on Wednesday, the 31st [illegible] at about 5[illegible] *gh.* 55 *p.*;—and (3) the *Amânta* Kârttika kṛishṇa 13 ended on Thursday, the 15th November, at about 52 *gh.* 19 *p.* These results [illegible] with the statement of the Tables [illegible] Śaka-Saṁvat 262 current [illegible] Aśvina [illegible] before Kârttika. On the [illegible] that, according to any [illegible] of calculation, the intercalation [illegible] month after Kârttika, the results [illegible] the *Pûrṇimânta* Kârttika kṛishṇa 13 ended on Tuesday, the 2nd October, A.D. 339, at about 14 *gh.* 29 *p.*;—(2) Kârttika śukla 13 ended on Tuesday, the 18th September, at about 1 *gh.* 38 *p.*, and consequently with the possibility that calculations by the Siddhântas themselves might make it end on the preceding day, Monday;—and (3) the *Amânta* Kârttika kṛishṇa 13 ended on Wednesday, the 17th October, at about 26 *gh.* 50 *p.*, being of course identical with the *Pûrṇimânta* Kârttika kṛishṇa 13 of the previous calculation.

If it should be argued that we should take **the Vilambin saṁvatsara of the Northern System**, it was current, by the Tables, at the commencement of Śaka-Saṁvat 267 current (A.D. 344-45); and, by Mr. Sh. B. Dikshit's Tables, I find that it actually commenced in Saka-Samvat 266 current, on Tuesday, the 1st November, A.D. 343; and it was followed, in Śaka-Saṁvat 267 current, by the Vikârin *saṁvatsara*, which commenced on Saturday, the 27th October, A.D. 344. The day on which the Vilambin *saṁvatsara* commenced, actually was the *Amânta* Kârttika krishṇa 13 of Śaka-Saṁvat 266 current; the *tithi* ending at about 52 *gh.* 51 *p.* This therefore, as the week-day was a Tuesday, disposes of another possible equivalent of the given date. But, in addition to this, the day on which the Vikârin *saṁvatsara* commenced was, approximately, Mârgaśîrsha śukla 4 of Śaka-Saṁvat 267 current. Consequently the Vilambin *saṁvatsara* included, at its end, the whole month of Kârttika, both *Pûrṇimânta* and *Amânta*, of Saka-Samvat 267 current. And the results, here, with the basis of 266 expired, are—(1) the *Pûrṇimânta* Kârttika krishṇa 13 ended on Friday, the 21st September A. D. 344, at about 13 *gh.* 26 *p.*;—(2) Kârttika śukla 13 ended on Saturday, the 6th October, at about 11 *gh.* 12 *p.*;—and (3) the *Amânta* Kârttika krishna 13 ended on Saturday, the 20th October, at about 53 *gh.* 36 *p.*

Thus, **in no way whatever can the result of Monday, in accordance with the record, be obtained directly from the Tables.**" And there is only a possibility of a Monday in one instance, in which, to obtain it, we must deliberately and unjustifiably, alter the name of the given *saṁvatsara* from Vilambin into Vikârin.

These results, therefore, furnish the strongest possible corroboration of the opinion already expressed by me,[7] that **this grant is a spurious grant**. Also, since the record evidently intends the Vilambin *saṁvatsara* of the Southern System, and since I have already shown, under No. 9 of,

[4] [illegible]

[5] [illegible] the [illegible] of which I must [illegible] thought worth while after [illegible]

[6] As the record belongs to Maisûr, in no case can the ending time of the *tithi* be earlier than the time for Bombay.

[7] *ante*, Vol. XV. p. 192, note 1.

these Calculations, that the Northern System was still used in Southern India up to A. D. 804, **the fabrication of this grant cannot be placed earlier than the commencement of the ninth century A.D.**

No. 14.

In the **Tanjore copperplate grant of the Western Gaṅga king Arivarman,** or more properly Harivarman, published by me in this Journal, Vol. VIII. p. 212 ff., with Plate, the date (lines 10 f., 18 f.) is — Śaka-kâlê nav-ôttara-shashtir eka-śata-gatêshu[1] Prabhava-saṁvatsar-âbhyantarê . . . . Phalgun-amâvâsyâ-Bhṛigu-[vârê*] Rêvati-nakshatrê Vṛiddhi-yôgê Vṛishabha-lagnê,—"in the Saka era, when there have gone by one hundred years increased by sixty raised by nine; in the Prabhava *saṁvatsara*, ... on Bhṛiguvâra, which is the new-moon *tithi* of the month Phâlguna; under the Rêvatî *nakshatra*, in the Vṛiddhi *yôga*; in the Vṛishabha *lagna*.

This gives us, for calculation, Śaka-Saṁvat 169 expired, and 170 current (A.D. 247-48); the **Prabhava saṁvatsara,** current, the month Phâlguna (ordinarily February-March); the new-moon *tithi, i.e.* the fifteenth *tithi* of the dark fortnight; and **Friday.** Also, the Rêvatî *nakshatra*: the Vṛiddhi *yôga*; and the Vṛishabha *lagna*, but, in the face of the results for the week-day, I have not thought it worth while to get these details worked out.

By **the Southern System** of the Cycle, **the Prabhava saṁvatsara** was Saka-Saṁvat 170 current (A. D. 247-48), in agreement with the record. In this year, however, with the basis of Śaka-Saṁvat 169 expired, the given *tithi*, Phalguna kṛishṇa 15, ended according to the *Pûrṇimânta* northern arrangement of the lunar fortnights, on Saturday, the 12th February, A.D. 248, at about 13 *ghaṭis*, 8 *palas*, after mean sunrise, for Bombay;[2] and, by the *Amânta* arrangement, on Sunday, the 12th March, at about 48 *gh.* 11 *p.*

If it should be argued that the given year, Śaka-Saṁvat 169, **is wrongly quoted in the record as an expired year,**—in which case, however, the name of the *saṁvatsara* would have to be altered from Prabhava, the first *saṁvatsara* of one cycle, into Kshaya, the last of the preceding cycle,—then the given details have to be calculated with the basis of Śaka-Saṁvat [illegible] expired, for 169 current (A.D. 246-47). In this year, however, the given *tithi* ended, according to the *Pûrṇimânta* arrangement, on Sunday, the 24th January A.D. 247 at about 19 *gh.* 51 *p.*; and, by the *Amânta* arrangement, on Monday, the 22nd February, at about 51 *gh.* 59 *p.*

If it should be argued that the details of the Śaka year are wrong, owing to a confusion between the Northern and Southern Systems of the cycle, and that we have to take **the Prabhava saṁvatsara of the Northern System,** then the given details have to be calculated, with the basis of Śaka-Saṁvat 175 expired, for 176 current (A.D. 253-54): since, by the Tables, the Prabhava *saṁvatsara* was current at the commencement of Śaka-Saṁvat 177 current: and, by Mr. Sh. B. Dikshit's Tables, it actually commenced in Śaka-Saṁvat 176 current, on Sunday, the 20th November, A.D. 253, considerably before the month Phâlguna. In this year, however, the given *tithi* ended, according to the *Pûrṇimânta* arrangement, on Sunday the 5th February, A.D. 254, at about 25 *gh.* 12 *p.*; and, according to the *Amânta* arrangement, on Monday, the 6th March, at about 46 *gh.* 57 *p.*

In no way, therefore, can a Friday be obtained, as required by the record. And this result gives the strongest possible confirmation of the opinion expressed by me when editing this inscription, and previously by Dr. Burnell,[3] that **this is a spurious record.** For the reasons given under No. 13 above, in connection with the Mudyanur grant, **the fabrication of it cannot well be placed earlier than A.D. 804.** And Dr. Burnell's opinion was, that it should be referred to about the tenth century, A.D.

J. F. FLEET

HAKIM QAANI

Ḥakim Qâani is one of the most popular of the modern Persian poets. His name is Mîrzâ Ḥabîbu'llah, poetically styled **Qâani.** Originally the poet styled himself **Habib,** but was induced to change his *takhallus* to Qâani in honour of [illegible] Qâân Mirzâ, one of the sons of Ḥusain 'Alî Mirzâ, Shujâ'-uddauleh, who specially patronized the poet. The biographical work [illegible] Gañj Shâyagân,[1] p. 362, calls his father Mîrzâ [illegible]-Hasan, poetically styled Gulshan, but the *M[illegible]-al-Fus[illegible]*, in the biographical notice of Qâani, calls his father Mîrza Muhammed

---

[1] Read [illegible]

[2] Whatever may be [illegible] locality to which this record [illegible] for which the [illegible] should [illegible] of course the [illegible] earlier than that for Bombay.

[3] [illegible] *Palæography*, p. 31f.

[1] The [illegible] is a biography of the poets who eulogised [illegible] Sadr 'Âzam, Mirzâ Âqâ Khân Nûrî; and [illegible] A.H. 1272 by Mirzâ Taher poetically styled [illegible] otherwise known as the Dîbâcheh Nigâr. The [illegible] was lithographed at Tehrân shortly after it was compiled.

'Ali, and under "Gulshan" repeats this statement, its author adding that he knew Gulshan personally in Shirâz. The family apparently belonged to the Zankeneh tribe of Kermânshâh, the poet himself being born at Shîrâz. Fath 'Alî Shâh, appreciating his talents, gave him the title of Mujtehed-ush-Shu'arâ, which title was changed by Fath 'Alî Shâh's successor to that of Hissân-ul-'Ajem. Qâânî died in A.H. 1270, leaving an imitation of the *Gulistân* of Sa'di called *Perîshân* پریشان, in which he states that it was composed in A.H. 1252, when he was a few months short of 30 years of age. This work has been lithographed separately at Tehrân, illustrated, A.H. 1271. The poet's complete poetical works, with the *Perîshân* have been lithographed at Tehrân 1274, 1277, 1293 and 1302. The complete works have been lithographed at Tabrîz 1273, Bombay 1273, 1277 and 1298. The biographical notice from the *Ganj Shâyagân* is included in most of these editions. Biographical notices of the poet will also be found in the *Nigâristân Sukhan*, p. 81, and in the *Madâyih Mu'tamediyeh*.

Included in most lithographed editions of the works of Qâânî is a collection of *ghazels*, by Mîrzâ 'Abbâs *bin* Âqâ Musâ Bostâmî, preceded by a notice of this poet, whose *takhallus* was **Frûghî.** Originally the poet called himself Maskîn, but finding a patron in the Shujâ'-uddauleh, Husain 'Alî Mirzâ, by desire of that prince he adopted the *nom de plume* of Frûghî, after the title of the prince's son, who was styled Frûgh-uddauleh. **Frûghî Bostâmî,** who is not to be mistaken for his distinguished contemporary **Frûghî Isfahânî,** was born at Kerbelâ in A.H. 1213 and died in A.H. 1274. His father, a courtier of the cruel founder of the Qâjâr dynasty—Âqâ Muhammed Khân—was elder brother of Fath 'Alî Shâh's treasurer, Dûst 'Alî Khân, Moayer-ul-Mamâlek.

Besides the above, the lithographed *Kulliyât* of Qâânî has also, bound up with it, some selections from the poems of one of Qâânî's patrons, Jelâl-ud-dîn Mîrzâ, poetically styled **Jelâl**, and author of the epitome of Persian history, called **Nâmeh Khosravân,** lithographed at Tehrân, illustrated, in 3 vols., A.H. 1285-88, and also in Vienna. The publication of the *dîvâns* of Qâânî and Frûghî is due to this prince, and the edition of 1274 is known by his name.

Prefixed to Mulla Mahmûd Khwânsârî's edition of Qâânî's works—dated Tehrân 1302—will be found the **Treatise on Prosody** called حدایق السحر **Hadâiq-us-Sihr** of **Rashid Vatvat.**[2]

A. S. J. C.

BOOK NOTICE.

THE FIRST ANNIVERSARY OF THE MADRAS GIRLS' MUSIC SCHOOLS FOR YEAR 1887. Madras: Addison and Co. 1888.

This unpretending little pamphlet gives the brief history of a new and most interesting experiment now being tried in Madras.

Mr. T. M. Venkatesa Sastri, a devoted student of music, desirous of instructing the female youth of his native city in the art, being moreover urged thereto by friends and acquaintances, opened last year **three schools for music for girls** in Madras, all conducted on a small scale. But he was met at the outset with a peculiar prejudice.—The people of Mailapur (the locality of the largest school) did not approve of their daughters being taught music! However he persevered, and by the end of the year had 53 pupils in his schools.

The music apparently taught is not described, but it seems to have been mainly vocal, the parents insisting on their children learning only 'religious and moral compositions.' The dread of their becoming as dancing-girls if taught anything else, seems to peep out here. Small beginnings have, however, been made towards teaching instrumental music, especially playing on the *vînâ*.

It is moreover extremely gratifying to learn that, owing to the absence of books from which to teach his girls, the enthusiastic founder of these schools intends publishing **primers** and **progressive works in Hindu music,** and that he has almost completed a graduated series of **textbooks**.

It is to be hoped that this new departure in domestic education will not prove to be what is so expressively called in Hindustân *shakhsî kâm*, and die when its chief promoter can no longer guide it. But there can be no doubt that it is not yet out of its difficulties; for the accounts show that the expenditure was Rs. 339, out of which the founder gave Rs. 265; only Rs. 74 being received as fees, and *nothing* from his friends and sympathisers. Schools cannot live long on this principle.

In addition to his money Mr. Venkatesa Sastri has given his time very freely. And we give his experiment our heartiest greeting and our best wishes; for, not only will his teaching improve the girls fortunate enough to come under it, but it also, as hinted above, distinctly makes for domestic morality.

[2] See *ante* Vol. XVI. p. 362.

ALBERUNI'S STATEMENT REGARDING THE GUPTA ERA.

BY J. F. FLEET, C.I.E., Bo.C.S., M.R.A.S.

THE chief difficulty in arriving at a final settlement of the true period to which we should refer the rise and duration of the Early Gupta power, was, that, **according to M. Reinaud's translation of Albêrûnî's statements** (see *ante*, Vol. XV. page 189), **the establishment of the so-called Gupta era commemorated the extermination of the Gupta dynasty.**

As Albêrûnî's further statements shewed that the era,—the commencement of which is now known to have been in A.D. 320,—evidently dated from a point in or very close to A.D. 319, this translation seemed to fix that point of time for the termination of the Early Gupta sovereignty. And this is the view that was adopted by one class of students of the subject.

This rendering of the leading historical item, however, from the first attracted special attention; because of **the primâ-facie improbability of the fact that an era, specially named after a certain dynasty, should date from the downfall of that dynasty.** And, from time to time, various attempts were made to find an explanation for it; and with very conflicting results.

That **the true solution** was to be found, not in wrong information given to Albêrûnî or in a mistake made by him in reporting correct information, but in an erroneous interpretation of his meaning, was first indicated to me by **Mr. Rehatsek**, who, in December, 1886, gave me, from M. Reinaud's published text, the following literal rendering of the crucial passage:—"and (*as regards*) the Gupta era, it was, as is said, a nation wicked (*and*) strong; and when they perished, dating was made according to them."[1] Such a rendering as this, would enable us to give to Albêrûnî's words a meaning perfectly clear and consistent with the usual order of things: *viz.* that the Guptas, though wicked and inferentially unpopular, yet had exercised so powerful a sway that, even when their dynasty came to an end, the era, that had been used by them, still continued to be used.

So also, somewhat later, **Mr. H. C. Kay**, translating the words by "dating was made by (or, according to) them," added the following remarks on the interpretation of them:—"The author's meaning is not clear. But, taking the words as they stand, I think they can most consistently be understood as signifying an adoption or continuation of the method of dating that had been used by the Guptas. The preceding words 'when they came to an end' suggest the possible meaning that the dating ran from that event. But it seems to me that this construction can be properly preferred, only if there be something else in the context, or in the known facts of the case, that would make it obligatory; or, at least, that clearly points to it."

The essential error in M. Reinaud's translation,—"the era which bears their name, is the epoch of their extermination,"—is due to the introduction of the word 'epoch,' which does not exist in the original text, and the use of which gives his translation a fixed obligatory meaning that, at any rate, a literal rendering of the original does not compel us to adopt.

And, in **proof of this**, I am glad to be able to publish the following transliteration, with interlinear word-for-word rendering and translation, which **Prof. William Wright**, of Cambridge, has been kind enough to give me, from Prof. Sachau's published text, of the original of the whole passage in question:—

TEXT AND LITERAL RENDERING.

Wa-li-dhâlika	'a'radû	'an-hâ	wa-jâ'û	ilâ
And for this	they have turned away	from them	and have come	to

tawârîkh	Shrî-Hrish	wa-Bigarmâdita	wa-Shaka	wa-**Bilaba**
the eras of	[Srî-Harsha]	and [Vikramâditya]	and [Saka]	and [**Valabhî**]

[1] Similarly, some thirteen years ago, Mr. Blochmann (see the *Jour. Beng. As. Soc.* Vol. XLIII. Part I. page 338) proposed to translate—"as regards the Guptakâl, they were, as is related, a people wicked and powerful, and when they were cut off it was dated in them (the era commenced?)."—This translation, however, is spoilt by the bracketed words "(the era commenced?);" the use of which shows why Mr. Blochmann, though giving a translation capable of a totally different meaning, expressed himself as not able to see any fault in M. Reinaud's translation.

wa-**Kûbita**. . . . . Wa-'ammâ ta'rîkh **Balba**
and [**Gupta**]. . . . . And as regards the era of [**Valabhî**]

wa-huwa ṣâḥib madînat **Balbah** wa-hiya janûbîyah 'an
and he lord of the city of [**Valabhî**] and it south from

madînat 'Anhlwârah bi-ḳarîb min thalâthîn jozhan fa-'inna
the city of [Aṇhilvaḍa] by near to thirty [*yôjana*] behold

'auwala-hu muta'akhkhir 'an ta'rîkh Shk bi-mi'atain
the first of it posterior to the era of [Śaka] by two hundred

wa-iḥdâ wa-'arba'in sanah. Wa-musta'milû-hu yaḍa'ûn Shg-kâl
and one and forty years. And the users of it put down [Śaka]-era

wa-yanḳuṣûn min-hu majmû' muka''ab 'as-sittah wa-murabba'
and lessen from it the sum of the cube of six and the square of

al-khamsah fa-yabḳâ ta'rîkh **Balba**. Wa-khabaru-hu 'âtin
five and remains the era of [**Valabhî**]. And his history is coming

fî mauḍi'i-hi. Wa-'ammâ **Gûbt**-kâl fa-kânû kamâ ḳîla
in its place. And as regards [**Gupta**]-era they were as is said

ḳauman 'ashrâran 'aḳwiya'a fa-lammâ 'inḳaraḍû urrikha
a people wicked strong and so after they perished it was dated

bi-him. Wa-ka-'anna **Blb** kân akhîra-hum. Fa'inna
by them. And as if that [**Valabhî**] was the last of them. And behold

'auwala ta'rîkhi-him 'aiḍan muta'akhkhir 'an Shg-kâl
the first of their era also posterior to [Śaka]-era

241. Wa-ta'rîkh al-munajjimîn yata'akhkhar 'an Shg-kâl
241. And the era of the astronomers is posterior to [Śaka]-era

587 wa-'alai-hi buniya zîj Kndkâtk li-Brhmgûpt
587 and on it is built the canon [Khaṇḍakâtaka] by [Brahmagupta]

wa-huwa 'al-ma'rûf 'inda-nâ bi'l-Arknd.
and it the known with us (*chez-nous*) by (the name of) Al-Arkand.

Fa-'idhan sinû ta'rîkh Shrî-Harish li-sanati-nâ
And so then the years of the era of [Śrî-Harsha] to our year

'al-mumaththal bi-hâ 1488 wa-ta'-rîkh Bkrmâdt 1088
that is used as an example 1488 and the era of [Vikramâditya] 1088

wa-Shg-kal 953 wa-ta'rîkh **Balba** 'alladhî huwa 'aiḍan
and [Śaka]-era 953 and the era of [**Valabhî**] which it also

Gûbita-kal 712.
[**Gupta**]-era 712.

TRANSLATION.

"And for this reason they have given them up,[2] and have adopted the eras of Śrî-Harsha, Vikramâditya, Śaka, **Valabhî**, and the **Guptas**. . . . . And as regards the era of **Valabhî**,—who was the ruler of the city of **Valabhî**, which was south of the city of Aṇhilváḍa by nearly thirty *yôjanas*,—its beginning was later than the Śaka era by two hundred and forty-one years. Those who use it put down (*the year of*) the Śaka era, and subtract from it the

[2] *i.e.* the eras of the Bhârata war and of the Kaliyuga, and certain other methods of reckoning time, just previously detailed by Albêrûnî, who states that they had been abandoned because of the very large numbers involved in the use of them.

sum of the cube of six and the square of five, and there remains (*the year of*) the era of **Valabhî.** His history is coming in its proper place.[3] And as regards the **Gupta** era,—(*the members of the dynasty*) were, it is said, a race wicked (*and*) strong; and so, after they became extinct, people dated by them. And it seems as if **Valabhî** was the last of them. And so the beginning of their era also is later than the Śaka era (*by*) 241 (*years*). And the era of the astronomers is later than the Śaka era (*by*) 587 (*years*); and on it is based the astronomical canon (*named*) *Khaṇḍakâṭaka*, by Brahmagupta, which among us is known by (*the name of*) *Al-Arkand*. So, then, 1488 years of the era of Śrî-Harsha are in correspondence with the year (*of Yazdajird*) that we have taken as a gauge; and 1088 of the era of Vikramâditya; and 953 of the Śaka era; and 712 of the era of **Valabhî**, which is also the **Gupta** era."

The essence of the whole matter, of course, lies in the precise meaning that is to be given to the words which follow the statement that the Guptas were wicked and powerful. Prof. Wright states that, in the original, we have a vague impersonal passive, meaning "it was dated by them," "there was a dating by them," or "people dated by them;" but that this certainly does not expressly imply that this dating took place from the year of the extinction of the Gupta power, and in consequence of that event. That such an interpretation might, if found on other grounds to be justifiable, be given to this expression, may be admitted. But it is at the least equally open to us to interpret the expression as meaning that the Guptas had been so powerful that, even when they were dead and gone, people still used their era to date by. And we have to determine, from an examination of the details of the recorded Gupta and Valabhî dates, which of these two possible interpretations is the one that must be adopted.

And here I will only add, for the present, that **the calculation of the dates in question,**—and, in particular, of those in the records of the Parivrâjaka *Mahârâjas*, where we have an expression which shews explicitly that, at the times mentioned, the Gupta sovereignty was still continuing, and that the dates belong to the identical era that was used by the Early Gupta kings themselves,—**has proved conclusively that they all belong to one and the same era, running from the epoch of A.D. 319-20; and that**, irrespective of the question whether the era was actually established by the Early Guptas, **we must refer the rise of the Early Gupta power to somewhere about A.D. 319, instead of placing the period of their supremacy anterior to that year, and their downfall in it.**

There is also **one other point in the revised translation,** to which special attention should be paid. Prof. Wright's rendering, "(*the year*) 712 of the era of Valabhî, which is also the Gupta era," is essentially different, in its ultimate bearing, from M. Reinaud's, "the year 712 of the era of Ballaba and of that of the Guptas." It shews very clearly that **Albêrûnî was speaking of absolutely one and the same era under two names**; not of two different eras, with the same, or almost the same, epoch.

As regards **the origin of M. Reinaud's erroneous rendering of Albêrûnî's statement,** it is clearly to be traced to **Mr. James Prinsep's** treatment of the Kahâuṁ pillar inscription of Skandagupta, in 1838, in the *Jour. Beng. As. Soc.* Vol. VII. p. 36 ff.; which contains the first reference to the Gupta era that I can trace; or, at any rate, the first suggestion of the existence of an era connected with the Guptas, apart from any general reference to the chronological period to which they might be referred. By his rendering of this record, it was dated (*id.* p. 37) "in the year one hundred and thirty-three after the decease of Skandagupta;" on which he remarked (*id.* p. 38) "the death of this prince is here employed as an epoch in a somewhat enigmatical way." The supposed enigma refers to the actual manner in which the total of 133,—or, more properly, 141, as shewn by subsequent examinations of the record,—is arrived at. As regards the other point, the reference of the years to the death of Skandagupta is due only to a mislection of the last word in line 2 of the text. The real reading there is *śânté*, the locative

[3] The reference appears to be to the story of the fruit-seller Ranka and the king Vallabha in Chapter XVII., "On Hindu Sciences which prey on the Ignorance of People."

singular of *śânta*, in apposition with *râjyê* in the same line, and the real translation is "in the tranquil reign of Skandagupta; . . . . . . in the one hundredth year, increased by thirty and ten and one" (*Corp. Inscr. Indic.* Vol. III. No. 15, page 67). Mr. Prinsep, however, read *śântêh*, the ablative or genitive singular of *śânti*, 'quiet, tranquillity, calmness, rest, repose;' and, with this reading, it was, of course, hardly possible to do otherwise than translate it by "after the decease," "of the repose, *i.e.* death," and "after the death," of Skandagupta, and to make the years that were recorded run from that event. No discussion of the question was then entered into. But Skandagupta then was, and still is, the last known king of the direct succession of the Early Gupta dynasty. And it is evidently the above rendering, which first suggested the idea of an era dating from the extermination of the Gupta power at the death of Skandagupta.

When, in 1845, **M. Reinaud** republished collectively, under the title of *Fragments Arabes et Persans*, certain extracts, with French translations, from works relating to India, which he had previously published separately in the *Journal Asiatique*, in September and October, 1844, and February-March, 1845, he rendered Albêrûnî (*id.* p. 143) as stating distinctly that the Gupta era dated from the extermination of the Guptas. I do not find that he makes any reference to Prinsep on this specific point. But he shews, throughout, so good an acquaintance with Prinsep's writings, as also with those of other English scholars, that he must certainly have read Prinsep's translation of, and comments on, the Kahâuṁ inscription. And, though he may not have intentionally allowed himself to be guided by Prinsep's views, it can hardly be doubted that he had a reminiscence of the purport of them, when he was translating Albêrûnî's remarks. In fact, in the face of Mr. Rehatsek's, Mr. Kay's, and Prof. Wright's versions, it is difficult to see how M. Reinaud can have arrived at the exact words used in his translation, except under some such predisposing influence.

THE EPOCH OF THE NEWAR ERA.

BY PROFESSOR F. KIELHORN, C.I.E.; GÖTTINGEN.

"The Nêwâr era is peculiar to Nêpâl, where it was introduced in A.D. 880 by Râja Râghava Dêva." "The year begins in October, and 951 years had expired in 1831." From these statements of Sir A. Cunningham,[1] with the substance of which the incidental remarks of other scholars agree, it appears that the epoch of the era spoken of is considered to be A.D. 879-80, and that the first year of that era is supposed to have lasted from about October A.D. 880 to about October 881. The expression that the year begins in October suggests the idea, the correctness of which has not been hitherto proved by documentary evidence, that the Nêwâr year begins with the month Kârttika; and stating more accurately the opinion of those who have written about the matter, the first day of the first current year of the era, according to their view, should be taken to be the day 2,042,759 of the Julian period, = 8th October A.D. 880 = Kârttika śukla 1 of the (northern) Vikrama year 938, current.

In order to arrive at some settlement of the question as to whether or to what extent the Hindus, during the middle ages, were in the habit of dating their documents in *expired* years, I have examined, amongst others, almost every available date recorded in the national era of Nêpâl, and in the course of the necessary calculations I have incidentally come to the following conclusions regarding the Nêwâr era:—

(1.) **The epoch of the Nêwâr era is A.D. 878-79,** and **the first day of the first current year** of that era is really the day 2,042,405 of the Julian period, = **20th October A.D. 879** = Kârttika śukla 1 of the (northern) Vikrama year 937, current.

(2.) As regards the arrangement of the two lunar fortnights, **the dark half of a month follows upon the bright half of the same month,** or, in other words, the scheme of the months is the *amânta* scheme of the southern Vikrama year. And from (1) and (2) together it follows that—

[1] *Indian Eras*, p. 74.

(3.) For calculating dates of the Nêwâr era by means of Dr. Schram's most handy Tables,[2] in order first to obtain the current (northern) Vikrama year, we must add to the *expired* years of the Nêwâr era 937, when a date falls within any of the five months from Kârttika to Phâlguna, and 938, when a date falls within any of the seven months from Chaitra to Âśvina.

To prove these statements, I shall place before the reader twenty-five Nêwâr dates, together with the corresponding European dates. Six of them are taken from the late Pandit Bhagvanlal Indraji's Inscriptions from Nêpâl, *ante*, Vol. IX. p. 163ff., two from Mr. Bendall's *Journey in Nêpâl and Northern India*, and the remaining seventeen from the same scholar's *Catalogue of Buddhist Sanskrit Manuscripts*. I shall begin with four dates (1-4), in which the years mentioned are distinctly described as *expired* years. After these I shall give nineteen dates (5-23), in which the figures for the years likewise denote expired years, although this is not actually stated in the dates themselves. And I shall conclude with two dates (24 and 25), in which the figures for the years must be taken to denote, exceptionally, *current* years.

A.—Dates in which the years mentioned are described as expired years.

1. Bendall's *Catalogue*, p. 187 :[3]—

Shat-ttarê (*sic*) pañcha-śatê gatê ꣿbdê Nêpâlikê mâsi cha Chaitra-saṁjñê ǀ

Krishṇa-pakshê Madan-âbhidhâyâṁ tithau Śaśâṅkâtmaja-vâsarê cha ǁ

Data :—The year 506 *expired*, the month Chaitra, the dark half, the *tithi Madana*, *i.e.* the thirteenth lunar day, Śaśâṅkâtmaja-vâsara, or **Wednesday.**

The corresponding northern Vikrama year is 506 + 938 = 1444 current; and the corresponding European date is **Wednesday,** March 28. 1386 On that day, at sunrise, the 13th *tithi* of the dark half was current, and it ended 20h 41m after mean sunrise. [If the epoch were A. D. 879-80, the corresponding date would be Tuesday, April 16, 1387].

2. *Ib.*, p. 30 :—

Dvâdaś-ôttara-pañcha-śataṁ prayâtê vibâyasê (?) ǀ

Pausha-śuklê navamyâñ=cha saṁpûrṇa (!) Guru-vâsarê ǁ

Data :—The year 512 *expired*, the month Pausha, the bright half, the ninth lunar day, Guru-vâsara, or **Thursday.**

The corresponding (northern) Vikrama year is 512 + 937 = 1449 current; and the corresponding European date is **Thursday,** January 4, 1392. On that day, at sunrise, the 9th *tithi* of the bright half was current, and it ended 15h 22m after mean sunrise. [If the epoch were A.D. 879-80, the corresponding date would be Monday, December 23, 1392.]

3. *ante*, Vol. IX. p. 183 :—

Saṁvan=Nêpâlak-âkhyê tribhuvana-dahanê Kâma-bâṇê prayâtê Mâghê śuklê cha Kâmê tithi...viditê prîti-yôgê cha puṇyê ǀ

Vârê Pûsh-âbhidhânê makara-ravi-gatê yugma-râśau śaśâṅkê

It should be noted that the same year, 533, which here is called an expired year, immediately afterwards, p. 184, where the date is repeated in the more business-like manner—

Saṁvat 533 Mâgha-śukla-trayôdaśî punarvasu-nakshatrê prîti-yôgê Âditya-vârê—

is called simply "the year 533."

Data :—The year 533 *expired*, the month Mâgha, the bright half, the thirteenth lunar day, Âditya-vâra or **Sunday,** the *nakshatra* **Punarvasu**, and the *yôga* **Prîti.**

The corresponding (northern) Vikrama year is 533 + 937 = 1470 current; and the corresponding European date is **Sunday**, January 15, **1413.** On that day, at sunrise, the 13th *tithi* of the bright half was current, and it ended 1h 25m after mean sunrise. Moreover, at sunrise, the moon *was* in the *nakshatra* **Punarvasu**, and the current *yôga was* **Prîti.** [If the epoch were A.D. 879-80, the corresponding date

[2] *Hulfstafeln fur Chronologie*, pp. 52 and 53. Dr. Schram professes to give, for the luni-solar calendar, approximate dates only, and the results obtained from his Tables have, therefore, in the following been verified or corrected by Professor Jacobi's Tables for calculating the *tithis*. But, as a matter of fact, Dr. Schram's Tables, in the majority of cases, do yield absolutely true results, and they are far more convenient and useful than any other similar Tables, and I feel sure that they will be generally adopted when they become more widely known. It is for this reason that, in the following, I have first converted the Nêwâr dates into dates of the *northern* Vikrama year, instead of converting them, as might otherwise appear more natural, into dates of the *southern* Vikrama year.

[3] In the following I shall give the dates exactly as given in the works from which I take them, and I shall not attempt any corrections except where it may be absolutely necessary.

would be Friday, February 2, 1414, *nakshatra* Pushya, and *yôga* Saubhâgya.]

4. Bendall's *Catalogue*, p. 147 :—

Yâtê Naipâlika-varshê tri-yugma-randhra-saṁyutê ।

Mârgaśîrshê ꞩsita-pakshê daśamyâṁ Ravi-vâsarê ॥

Data:—The year 923 *expired*, the month Mârgaśîrsha, the dark half, the tenth lunar day, Ravi-vâsara or **Sunday.**

The corresponding (northern) Vikrama year is 923 + 937 = 1860 current; and the corresponding European date is **Sunday**, December 19, new style, 1802. On that day, at sunrise, the 10th *tithi* of the dark half was current, and it ended 18 hours after mean sunrise. [If the epoch were A.D. 879-80, the corresponding date would be Thursday, December 8, new style, 1803.]

B.—Dates in which the years mentioned must be regarded as expired years, although they are not described as such in the dates themselves.

5. *Ib.*, p. 151 :—

Pañchatriṁś-âdhikê ꞩbdê śatatama praśatê(?) Chaitra-mâsê himâbhâ ।

Vikhyâtê ꞩsmin daśamyân=Daniṁja(? Danuja)ripugurau vâsarê saṁpraśastê ॥

Data:—The year clearly is 135, but the expression *praśatê* following upon *śatatama* is unintelligible; Mr. Bendall hesitatingly suggests the reading *pragatê* ('elapsed,' see Palæographical Introduction, p. xxv. note), which, he admits, offends against the metre. The remaining data are,—the month Chaitra, the bright half, the tenth lunar day, Danuja-ripuguru-vâsara or **Thursday**.

Taking 135 to be the year expired, the corresponding northern Vikrama year is 135 + 938 = 1073 current. In that year, Chaitra was an intercalary month, and the corresponding European date, for the *adhika* Chaitra, would be **Thursday,** March 3, 1015, when the 10th *tithi* of the bright half ended 4h 2m after mean sunrise; and for the *nija* Chaitra, Friday, April 1, 1015. As the former date is evidently the one intended, the result of the calculation suggests the reading—

Pañchatriṁś-âdhikê ꞩbdê śatatama *itarê* Chaitra-mâsê, "in the 135th year, in the other, *i.e.*, *adhika* month Chaitra,"—

Which both from a grammatical and a metrical point of view is unobjectionable.[4] [Taking 135 to be the current year, the date corresponding to Chaitra śukla 10, with the epoch A.D. 878-79, would be Sunday, March 14, 1014; and in that year there was, of course, no intercalary month.]

6. *Ib.*, p. 168 :—

Saṁvat 188 Bhâdrapada-śukla-paurṇamâsyâḥ Śukra-dinê.

Data:—The year 188, the month Bhâdrapada, the bright half, the full-moon day, Śukra-dina or **Friday.**

Taking 188 to be the year expired, the corresponding northern Vikrama year is 188 + 938 = 1126 current; and the corresponding European date is **Friday,** August 15, 1068, when, at 22h 15m Greenwich time, there was a lunar eclipse. [With 188 current, and the epoch A.D. 878-79, the corresponding date would be Monday, August 17, 1067, when, at 5h 31m Greenwich time, there also was a lunar eclipse.]

7. Bendall's *Journey*, p. 80 :—

Tribhir=varshaiḥ samâyuktê saṁvatsara-śata-dvayê ।

Vaiśâkha-śukla-śaptamyâṁ Budhê pushyôdayê śubhâ [॥]

Data:—The year 203, the month Vaiśâkha, the bright half, the seventh lunar day, Budha or **Wednesday,** the *nakshatra* **Pushya.**

Taking 203 to be the year expired, the corresponding northern Vikrama year is 203 + 938 = 1141 current; and the corresponding European date is **Wednesday,** April 26, 1083, when, at sunrise, the moon *was* in the *nakshatra* **Pushya.** Civilly, Wednesday, April 26, was śu. di. 6, but the 7th *tithi*, mentioned in the date, began as early as 4h 7m after mean sunrise.[5] [With 203 current, and the epoch

---

[4] Another date which must contain an intercalary month, is given in Mr Bendall's *Catalogue*, p. 162,—"*samvat* 739 *Srâvana-nashta-mâsê krishna-pakshê*," here the word *nashta* appears to be corrupt, but the corresponding northern Vikrama year is 1677 current, when Śrâvana was an intercalary month.

[5] See below, date 16. According to the *Dharmasindhusâra*, the birth (or descent) of the Gangâ took place on the *saptamî* or 7th lunar day of the bright half of Vaiśâkha, and ceremonies in honour of that event must be performed on that civil day on which the *saptamî* is current at midday. The inscription, from which the above date is taken, simply records the setting up of an image in honour of the Sun, and contains no allusion to Gaṅgâ.—According to a general rule given in the *Dharmasindhusâra*, any rites whatever of the 7th *tithi* must be performed on that civil day on which the 7th *tithi* meets with the 6th *tithi*.

A.D. 878-79, the corresponding date would be Friday, April 8, 1082, *nakshatra* Pushya.]

8. Bendall's *Catalogue*, p. 182 :—

Saṁvat 285 Śrâvaṇa-śuktr-âshṭamyâm=Âditya-dinê.

Data :—The year 285, the month Śrâvaṇa, the bright half, the eighth lunar day, Âditya-dina or **Sunday.**

Taking 285 to be the year expired, the corresponding northern Vikrama year is 285 + 938 = 1223 current; and the corresponding European date is **Sunday,** July 18, 1165. On that day, at sunrise, the 8th *tithi* of the bright half was current, and it ended 12 hours after mean sunrise. [With 285 current, and the epoch A.D. 878-79, the corresponding date would be Wednesday, July 29, 1164.]

9. *Ib.*, p. 155 :—

Samvat [336] Pausha-kṛishṇ-âshṭamyâṁ Vṛihaspati-vâsarê vaiśâkha-nakshatrê.

Data :—The year 336 (?), the month Pausha, the dark half, the eighth lunar day, Bṛihaspati-vâsara or **Thursday,** the *nakshatra* **Viśâkhâ.**

Taking 336 to be the year expired, the corresponding (northern) Vikrama year is 336 + 937 = 1273 current; and the corresponding European date is **Thursday,** January 14, 1216. On that day, at sunrise, the 8th *tithi* of the dark half was current, and it ended 5h 32m after mean sunrise. Moreover, at sunrise, the moon *was* in the *nakshatra* **Viśâkhâ.** The result of the calculation thus shows that the figures for the year, 336, about which Mr. Bendall is somewhat doubtful, because the date has been retouched, and because "the day of the week and month" were supposed "not to tally for the year 336," are quite correct. [With 336 current, and the epoch A.D. 878-79, the corresponding date would be Friday, December 26, 1214, *nakshatra* Svâtî.]

10. *Ib.*, p. 84 :—

Samvat 505 Kârtika-śukla ashṭhamyâṁ tithau Sanimvara-vâsarê.

Data :—The year 505, the month Kârttika, the bright half, the eighth lunar day, Śanaiśchara-vâsara or **Saturday.**

Taking 505 to be the year expired, the corresponding (northern) Vikrama year is 505 + 937 = 1442 current; and the corresponding European date is **Saturday,** October 22, 1384. On that day, at sunrise, the 8th *tithi* of the bright half was current, and it ended 16h 52m after mean sunrise. [With 505 current, and the epoch A.D. 878-79, the corresponding date would be Tuesday, November 3, 1383.]

11. *Ib.*, p. 191 :—

Samvata 509 Jyaishta-śukla daśamyâyâ tithau Śukra-vâsarê.

Data :—The year 509, the month Jyaishṭha, the bright half, the tenth lunar day, Śukra-vâsara or **Friday.**

Taking 509 to be the year expired, the corresponding northern Vikrama year is 509 + 938 = 1447 current; and the corresponding European date is **Friday,** June 4, 1389. On that day, at sunrise, the 10th *tithi* of the bright half was current, and it ended 1h 8m after mean sunrise. [With 509 current, and the epoch A.D. 878-79, the corresponding date would be Saturday, May 16, 1388.]

12. Bendall's *Journey*, p. 83 :—

Śrîman-Nêpalika-samvat 512 Vaiśâkha-kṛishṇa-shashṭhyâṁ tithau ‖ gara-karaṇê[6] ‖ visva-muhûrttê śravaṇa-nakshatrê ‖ aindra-yôgê ‖ Âditya-vâsarê ‖

Data :—The year 512, the month Vaiśâkha, the dark half, the sixth lunar day, the *karaṇa* **Gara,** the *muhûrta* Viśva, the *nakshatra* **Sravaṇa,** the *yôga* **Indra,** Âditya-vâsara or **Sunday.**

Taking 512 to be the year expired, the corresponding northern Vikrama year is 512 + 938 = 1450 current; and the corresponding European date is **Sunday,** May 12, 1392. On that day, the 6th *tithi* of the dark half commenced about sunrise, and the first half of that *tithi*, *i.e.* the time from about sunrise to about sunset, was the 41st *karaṇa*, called **Gara.** And at sunrise, the moon *was* in the *nakshatra* **Sravaṇa,** and the current *yôga was* **Indra.** [With 512 current, and the epoch A.D. 878-79, the corresponding date would be Tuesday, April 25, 1391, the 42nd *karaṇa*, called Baṇij, *nakshatra* Uttarâ Âshâḍhâ, and *yôga* Sukla.]

13. Bendall's *Catalogue*, p. 155 :—

Samvata 532 Mâgaśira-śukla ‖ saptamyâṁ tithau śatavṛisha-nakshatrê ‖ harashaṇa-pra-(para ?)-vajra-yôga ‖ Âditya-vâsarê ‖

Data :—The year 532, the month Mârgaśiras,

[6] The published version has *śarakaranê*, supposed to be the Hindustani سر كوني, and rendered "by order of Government." My calculation of the date renders it certain that the reading *gara-karanê* is right.

the bright half, the seventh lunar day, Âditya-vâsara or **Sunday,** the *nakshatra* 'Śatavṛisha,' *i.e.* evidently **Satabhishaj,** and the *yôgas* **Harshaṇa** and **Vajra.**

Taking 532 to be the year expired, the corresponding (northern) Vikrama year is 532 + 937 = 1469 current; and the corresponding European date is **Sunday,** November 22, 1411. On that day, at sunrise, the 7th *tithi* of the bright half was current, and it ended 13h 36m after mean sunrise. Moreover, at sunrise, the moon *was* in the *nakshatra* **Satabhishaj,** and the current *yôga* was **Vajra.** [With 532 current, and the epoch A.D. 878-79, the corresponding date would be Wednesday, December 3, 1410, *nakshatra* Pûrvâ-Bhadrapadâ, and *yôga* Vyatîpâta.]

14. *Ib.*, p. 180:—

Samvat 532 Âshâḍha-kṛishṇa | êkadaśyâṁ tithau | kârttika-ghathî 20 | rôhiṇî-nakshatra | gaṇḍa-ghaṭhî 6 vṛiḍi-yôgê | Sôma-vâsarê |

Date:—The year 532, the month Âshâḍha, the dark half, the eleventh lunar day, Sôma-vâsara or **Monday,** the *nakshatras* **Kṛittikâ** and **Rôhiṇî,** and the *yôgas* **Gaṇḍa** and **Vṛiddhi.**

Taking 532 to be the year expired, the corresponding northern Vikrama year is 532 + 938 = 1470 current: and the corresponding European date is **Monday,** July 4, 1412. On that day, at sunrise, the 11th *tithi* of the dark half was current, and it ended 21 h. 20 m. after mean sunrise. Moreover, calculated by Prof. Jacobi's tables, the moon at sunrise was in the *nakshatra* **Rôhiṇî,** and the current *yôga* was **Vṛiddhi.** [With 532 current, and the epoch A.D. 878-79, the corresponding date would be Thursday, July 16, 1411, *nakshatra* Mṛiga, and *yôga* Vyâghâta.]

15. *Ib.*, p. 183:—

Samvat 749 Jyeshtha-kṛishṇa amâvâsyâ sûrya grâsa-sa

Data:—The year 749, the month Jyaishtha, the dark half, new-moon day, **a solar eclipse.**

Taking 749 to be the year expired, the corresponding northern Vikrama year is 749 + 938 = 1687 current; and the corresponding European date is June 11, 1629. On that day, 2h 56m Greenwich time, or at Laṅkâ about [illegible] p.m., there was a total **solar eclipse, visible in India.** [With 749 current, and the epoch A.D. 878-79, the corresponding date would be June 21, 1628; and on that day there also was a solar eclipse; but this eclipse was not visible in India.]

16. *ante*, Vol. IX. p. 185:—

Nêpâla-varshê svara-śara-turagair = aṅkitê Phâlgunîyê pakshê prâptê valakshê=mara-guru-divasê śaṅkara-rkshê daśam-yâm |; and on p. 186:—Samvat 757 Phâlguṇa-mâse śukla-pakshê daśamyâṁ tithau ârdrâ-para-punar vasu-nakshatrê âyushmân-yôgê Bṛihaspati-vâsarê.

Data:—The year 757, the month Phâlguna, the bright half, the tenth lunar day, Bṛihaspati-vâsara or **Thursday,** the *nakshatras* **Ârdrâ** and **Punarvasu,** and the *yôga* **Âyushmat.**

Taking 757 as the year expired, the corresponding (northern) Vikrama year is 757 + 937 = 1694 current; and the corresponding European date is **Thursday,** February 23, 1637, when, at sunrise, the moon *was* in the *nakshatra* **Ârdrâ,** and, from 13 to 14 hours later, in **Punarvasu,** and when the current *yôga was* **Âyushmat.** Civilly, Thursday, February 23, was śu. di. 9, but the 10th *tithi* mentioned in the date began 5h 49m after mean sunrise.[7] [With 757 current and the epoch A.D. 878-79, the corresponding date would be Sunday, March 6, 1636, *nakshatra* Pushya, and *yôga* Atigaṇḍa.]

17. *Ib.*, p. 188:—

Saṁvat 769 Phâlguna śukla shashṭhyâṁ tithau anurâdhâ-nakshatrê harshaṇa-yôgê Bṛihaspati-vâsarê.

Data:—The year 769, the month Phâlguna, the bright half, the sixth lunar day, Bṛihaspati-vâsara or **Thursday,** the *nakshatra* **Anurâdhâ,** and the *yôga* **Harshaṇa.**

Assuming these data to have been given correctly, the corresponding European dates are,—for 769 expired (= 769 + 937 = 1706 Vikrama current) Wednesday, February 7, 1649, the 6th *tithi* of the bright half ending 20h 6m after mean sunrise, *nakshatra* Bharaṇî (No. 2 instead of No. 17), and *yôga* Brahman (No. 25 instead of No. 14);—and for 769 current, Saturday, February 19, 1648, *nakshatra* Bharaṇî and *yôga* Vaidhṛiti (No. 27 instead of No. 14). These days evidently are

[7] See above, date 7.—I cannot find that any religious ceremony is specially prescribed for the 10th *tithi* of the bright half of Phâlguna. According to the *Dharmasindhu*, fasts, etc., of the 10th *tithi* should take place on that day on which the 10th *tithi* meets with the 9th *tithi*.

wrong; and a satisfactory result is obtained only, if we take the word *śukla* of the date to have been put, either in the original inscription or by the editor, erroneously for the word *krishṇa*. For the European date corresponding to the sixth lunar day of the *dark* half of Phâlguna, 769 expired, is **Thursday,** February 22, 1649, when the 6th *tithi* of the dark half ended 12h 7m after mean sunrise, and when, at sunrise, the moon *was* in the *nakshatra* **Anurâdhâ,** and the current *yôga was* **Harshaṇa.**

18. *Ib.*, p. 191 :—

Nêpâlê saṁvatê = smin = haya-giri-munibhiḥ saṁyutê Mâgha-mâsê saptamyâṁ śukla-pakshê Ravidina-sahitê rêvatî-ṛi-ksharâjê । yôgê śrî-siddhi-saṁjñê.

Data :—The year 777,[8] the month Mâgha, the bright half, the seventh lunar day, Ravidina or **Sunday,** the *nakshatra* **Rêvatî,** and the *yôga* **Siddhi** (?).

Taking 777 to be the year expired, the corresponding (northern) Vikrama year is 777 + 937 = 1714 current ; and the corresponding European date is **Sunday,** January 11, 1657, when the 7th *tithi* of the bright half ended 22h 11m after mean sunrise. Moreover, at sunrise, the moon *was* in the *nakshatra* **Rêvatî.** As to the *yôga*, the result calculated by Prof. Jacobi's tables would be Sâdhya ; and as this *yôga* (No. 22) is next to *Siddha* (No. 21), not to *Siddhi* (No. 16), I feel certain that the word *siddhi* of the date has been put by mistake for *siddha*. [With 777 current, and the epoch A.D. 878-79, the corresponding date would be Wednesday, January 23, 1656, *nakshatra* Aśvinî, and *yôga* Śukla.]

19. *Ib.*, p. 192 :—

Nêpâl-âbdê gagana-dharinî-nâga-yuktê kil= Ûrjê mâsê pakshê vidhu-virahitê su-dvitîyâ-tithau . . . . Ravau.

Data :—The year 810, the month Kârttika, the dark half, the second lunar day, Ravi or **Sunday.**

Taking 810 to be the year expired, the corresponding (northern) Vikrama year is 810 + 937 = 1747 current ; and the corresponding European date is **Sunday,** October 20, 1689. On that day, at sunrise, the 2nd *tithi* of the dark half was current, and it ended 7h 35m after mean sunrise. [With 810 current, and the epoch A.D. 878-79, the corresponding date would be Tuesday, October 30, 1688.]

20. Bendall's *Catalogue*, p. 142 :—

Sambat 820 Kârttika-mâsya-śukla-pakshê trayôdasyâṁ tithau rêvatî-nakshatrê vajra-yôge . . . Vṛihaspati-vâsarê, and other particulars which I omit here.

Data :—The year 820, the month Kârttika, the bright half, the thirteenth lunar day, Bṛihaspati-vâsara or **Thursday,** the *nakshatra* **Rêvâtî,** and the *yôga* **Vajra.**

Taking 820 to be the year expired, the corresponding (northern) Vikrama year is 820 + 937 = 1757 current ; and the corresponding European date is **Thursday,** October 26, 1699. On that day, at sunrise, the 13th *tithi* of the bright half was current, and it ended 12h 45m after mean sunrise. Calculated by Prof. Jacobi's tables, the moon, at mean sunrise, was in the *nakshatra* Aśvinî, the *nakshatra* following upon **Rêvatî,** and the current *yôga* was Siddhi, the *yôga* following upon **Vajra.** [With 820 current, and the epoch A.D. 878-79, the corresponding date would be Sunday, November 6, 1698, *nakshatra* Bharaṇî, and *yôga* Parigha.]

21. *ante*, Vol. IX. p. 193 :—

Abdê Râma-prajêśvarâsya-vasubhir=Mâghê sitê pakshakê

śûlê ch=ôttaraphâlgunê Śaśadharê vârê dvitîyâ-tithau ।

Data :—The year 843, the month Mâgha, the bright half, if the word following upon the word *Mâghê* is taken (as it has been taken by the editor of the inscription) to be *sitê*, but the dark half, if the same word is taken to be *asitê* (*Mâghê* ऽ *sitê*) : the second lunar day, Saśadhara-vâra or **Monday,** the *nakshatra* **Uttarâ-Phâlgunî,** and the *yôga* **Sûla.**

With 843 expired (= 843 + 937 = 1780 Vikrama current) the corresponding European date for the *bright* half of Magha is Sunday, January 27, 1723 ; and with 843 current, the corresponding date, also for the *bright* half, is January 8, 1722, which *was* a Monday, but on which the moon was in the *nakshatra* Sravishthâ (No. 23 instead of No. 12), and when the current *yôga* was Vyatîpâta (No. 17 instead of No. 9).

[8] Not 778, as given by the editor of the inscription.

Both days clearly are wrong, and a satisfactory result is obtained only for the *dark* half of Mâgha; for the date corresponding to the second of the *dark* half of Mâgha, 843 expired.—is **Monday**, February 22, 11, 1723, when the 2nd *tithi*, of the dark half ended 6h 6m after mean sunrise, and when at sunrise the moon *was* in the *nakshatra* **Uttarâ-Phâlgunî**, and the current *yôga was* **Sûla**. [With 843 current, and the epoch A.D. 878-79, the corresponding date, for the dark half of Mâgha, would be Tuesday, January 23, 1722.]

22. Bendall's *Catalogue*, p. 5:—

Naipalik-âbdê bhuja-parvata-vasu-saṁyutê | mâsê Aśvini ssitê | trayôdaśiamita-tithau | tarà chitrâ prîti-yôgê . . . Bhâskaraputra-vâsarê . . .

Data:—The year 872, the month Âśvina, the dark half (*Âśvinê ssitê*), the thirteenth lunar day, Bhâskaraputra-vâsara or **Saturday,** the *nakshatra* **Chitrâ,** and the *yôga* **Prîti.**

Taking 872 to be the year expired, the corresponding northern Vikrama year is 872 + 938 = 1810 current; and the corresponding European date is **Saturday**, November 4, new style, 1752, when the 13th *tithi* of the dark half ended 17 minutes after mean sunrise. Calculated by Prof. Jacobi's Tables, the moon, at sunrise, *was* in the *nakshatra* **Chitrâ,** and the current *yôga* was Âyushmat, the *yôga* following upon **Prîti.**—As the reading *Âśvinê ssitê* might be considered doubtful, I have calculated also the 13th of the *bright* half of Âśvina, with the result—Saturday, October 21, new style, 1752, *nakshatra* Rêvatî (No. 27 instead of No. 14), and *yôga* Vajra (No. 15 instead of No. 2), which shows that the day intended must be the 13th of the dark half. [With 872 current, and the epoch A.D. 878-79, the corresponding date would be Sunday, October 6, 1751, *nakshatra* Hasta, and *yôga* Vaidhriti.]

23. *Ib.*, p. 40 .—

Samvat 995 miti Baiśâkha kṛishṇa 2 Sanîśvara-vâra.

Data:—The year 995, the month Vaiśâkha, the dark half, the second, Sanivâra or **Saturday.**

Taking 995 to be the year expired, the corresponding northern Vikrama year is 995 + 938 = 1933 current; and the corresponding European date is **Saturday,** May 22, new style, 1875, when the 2nd *tithi* of the dark half ended 9h 30ma fter mean sunrise. [With 995 current, and the epoch A.D. 878-79, the corresponding date would be Sunday, May 3. 1874.]

C.—Dates in which the years mentioned must be regarded, exceptionally, as current years.

24. *Ib.*, p. 172:—

Samvat 157 Vaiśâkha-śukla-tṛitîyâyâṁ Śukra-dinê.

Data:—The year 157, the month Vaiśâkha, the bright half, the third lunar day, Śukra-dina or **Friday.**

Taking 157 to be the current year, the corresponding northern Vikrama year is 156 expired + 938 = 1094 current; and the corresponding European date is **Friday,** April 2, 1036, when the 3rd *tithi* of the bright half ended 9h 21m after mean sunrise. [With 157 expired and the epoch A.D. 878-79, or with 157 current and the epoch A.D. 879-80, the corresponding date would be Thursday, April 21, 1037; and with 157 expired, and the epoch A.D. 879-80,—Monday, April 10, 1038.]

25. *Ib.*, p. 148:—

Samvat 927 Vaiśâsha-mâsya-śukla-pakshê chaturdaśyâṁ tithau chittà-nakshatrê vaja-yôgê . . . Vṛihaspati-vâra.

Data:—The year 927, the month Vaiśâkha, the bright half, the fourteenth lunar day, Bṛihaspati-vâra or **Thursday,** the *nakshatra* **Chitrâ,** and the *yôga* **Vajra.**

Taking 927 to be the current year, the corresponding northern Vikrama year is 926 expired + 938 = 1864 current; and the corresponding European date is **Thursday,** May 1, new style, 1806, when the 14th *tithi* ended 19h 25m after mean sunrise. At sunrise, the moon *was* in the *nakshatra* **Chitrâ,** and the current *yôga was* **Vajra.** [With 927 expired and the epoch A.D. 878-79, or with 927 current and the epoch A.D. 879-80, the corresponding date would be Wednesday, May 20, new style, 1807, *nakshatra* Svâti, and *yôga* Variyas; and with 927 expired and the epoch A.D. 879-80,—Monday, May 9, new style, 1808, *nakshatra* Svâti, and *yôga* Vyatipâta.]

An examination of these 25 dates will show that, as regards the settlement of the true epoch of the Nêwâr era, the most important of them

are the first four and the last two dates. If we had only the 19 dates, from 5 to 23, the years mentioned in them might of course be taken as *current* years, and in that case the results as regards week-days, etc., would be the same with the epoch A.D. 879-80. But that epoch will absolutely not do for the dates 1-4, which distinctly give *expired* years, nor for the dates 24 and 25; and, unless we are prepared to assume an error in every one of those six dates, the only epoch that leads to satisfactory results for them, and generally for every one of the 25 dates, is A.D. 878-79, or, more accurately, that epoch by which the era began on 20 October, A.D. 879. And this, again, shows that the years given in the dates 5-23, beginning with the Nêwâr year 135 and ending with 995, must undoubtedly be taken as *expired* years, although the dates contain no such word as *atîta*, *gata*, *yâta*, or any other synonymous expression.

As regards **the commencement of the Nêwâr year,** a comparison of date 22, which gives the 13th day of the dark half of the month Âśvina, with date 10, which gives the 8th day of the bright half of the month Kârttika,[9] and of which the former requires the addition of 938 and the latter the addition of only 937 for the obtainment of the current northern Vikrama year, clearly shows that the year commences on one of the ten days intervening between those two dates; in other words, that it undoubtedly does begin with the first day of the bright half of Kârttika, the day on which it is reported to begin.

And that **the arrangement of the two lunar fortnights** is the *amânta* arrangement of the southern Vikrama year, is clearly proved by the dates 1, 4, 9, 12, 14, 15, 17, 19, 21, 22, and 23; for those eleven dates give days in dark fortnights, which, as I have taken care to ascertain, in every instance, work out satisfactorily only with the *amânta* scheme of the month.

Finally, I may draw attention to the dates 7 and 16, because in them the words *saptamyâm*, 'on the seventh (*tithi*),' and *daśamyâṁ tithau*, 'on the tenth *tithi*,' clearly do not mean 'on the day on which the 7th *tithi* ended' and 'on the day on which the 10th *tithi* ended;' but mean exactly what they signify, and thus happen to denote, in the first date, the 6th day, and in the other, the 9th day of the lunar fortnight. The fact is that, when a *tithi* begins on one day and ends on the next, the ceremonies prescribed for it must, under certain circumstances which are fully described in such works as the *Dharmasindhusâra*, be performed on the civil day on which the *tithi* commences, and not on the civil day on which the *tithi* ends; and it is highly desirable that somebody should compile, for easy reference, a short and clear tabular statement, showing the *tithis* which are liable to be treated in this way, and the exact conditions under which, for religious purposes, they must be connected with the civil day on which they *commence*. Anyhow, it is clear that, in calculating dates, it may sometimes be necessary to ascertain the beginning as well as the end of a *tithi*, a process which now has been rendered more than easy by Professor Jacobi's Tables.

SOME SPECIMENS OF SOUTH INDIAN POPULAR EROTIC POETRY.

BY PANDIT S. M. NATESA SASTRI, M.F.L.S.

Love Songs in Southern India are as numerous as elsewhere, and large numbers of books exist everywhere containing them. Very few, however, are worth collecting, or the trouble of publication in translation. But as it is of interest to gather specimens of their purely

[9] Arranged in the sequence of the months, the 25 dates would stand as follows:—

Date 10, Kârttika, śukla 8
Date 20, Kârttika, śukla 13
Date 19, Kârttika, krishṇa 2.
Date 13, Mârgaśiras, śukla 7.
Date 4, Mârgaśiras, krishṇa 10.
Date 2, Pausha, śukla 9.
Date 9, Pausha, krishṇa 8.
Date 18, Mâgha, śukla 7
Date 3, Mâgha, śukla 13
Date 21, Mâgha, krishṇa 2
Date 16, Phâlguna, śukla 10
Date 17, Phâlguna, krishṇa 6
Date 5, Chaitra adhika, śukla 10
Date 1, Chaitra, krishṇa 13.
Date 24, Vaiśâkha, śukla 3
Date 7, Vaiśâkha, śukla 7
Date 25, Vaiśâkha, śukla 14
Date 23, Vaiśâkha, krishṇa 2
Date 12, Vaiśâkha, krishṇa 6.
Date 11, Jyaishṭha, śukla 10.
Date 15, Jyaishṭha, krishṇa 15.
Date 14, Âshâḍha, krishṇa 11
Date 8, Srâvaṇa, śukla 8
Date 6, Bhâdrapada, śukla 15
Date 22, Âśvina, krishṇa 13

erotic verse from the lips of the people themselves, I give three ordinary love songs in the following pages, which are good ones of their kind.

In addition to what may be called the general love songs of the people, there exists a very large number of **songs and ditties which are sung at ceremonies connected with marriages**, some of which are curious and well worth preserving. Of these the **Nalaṅgupâṭṭu** are of great interest, and I give below six specimens. At an ordinary infant marriage when the ritual is over it is customary to seat the bride and bridegroom (both children) opposite each other on a fine carpet or mat, and to make the bride do mock obeisance to her husband. The boy is then made to sing some formal song of acceptance thereof. This ceremony, which is entirely a female one—no adult male being present—is called *nalaṅgu*, and hence the name (*nalaṅgu-pâṭṭu*) of the songs connected with it. Sometimes a ball made of flowers is rolled between the bride and bridegroom, sometimes the bride has to adorn the ankles of the bridegroom and *vice versâ*, while sometimes scented flowers are scattered about. These details, of course, vary with each locality, the songs which accompany them complying with each variation.

In addition to the above occasion every formal visit that the bridegroom makes to the bride's house and *vice versâ* before the real marriage comes off is made an excuse for a *nalaṅgu*, but it is never practised after they have once lived together.

When **girls** attain **puberty** it is, or rather has been, customary for all the young girls of the village to collect and to sing songs of the most obscene nature! Males are on such occasions rigidly excluded. In the present day, however, this revolting custom has practically died out, being continued only in remote villages off the usual lines of communication. I have naturally given no specimens of these.

Epithalamia are exceedingly common in the south of India, and are there known as **"Open-the-door Songs."** I give one specimen. After the final nuptial ceremonies are over the bride and bridegroom are conducted to the nuptial chamber and are locked in. The ladies of their respective families then collect outside the door, and sing songs, generally descriptive of the amours of some god. In these the goddess is usually represented as scolding the god with having gone astray with some other female. They get their peculiar name because they are invariably followed by the request, "Open-the-door."

As far as I have been able to ascertain, the songs and customs above alluded to date no further back than the time of the introduction of Vaishnavism into Southern India, especially those which celebrate in verse the amorous adventures of Kṛishṇa with his *gôpis*.

LOVE SONGS.

Song No. I.

ALAGITE BHAGYAMAYA.

Chorus.—Alagitê bhâgyamâyâ mariêmi vâḍu—
Alâgitê bhâgyamâyâ ॥

I.

Taliru-bôṇirô vâni daṇḍiñcha galadâ ॥
Alagitê bhâgyamâyâ, &c.

II.

Arasompu mâṭalâḍê vâniki nê
taruṇinô mañchi dânanayyênâ
Sarasaku râdâya sakiyarô nâmômu
Tirigi tsûḍad=ĕmô dêcudunnâḍu ॥
Alagitê bhâgyamâyâ, &c.

III.

Bâlilêdikan=ela nâtô bandu
tsâlugâbôlu santôshamâya
nilâgunêrâni kitavugâḍêmô
Nilavêṇirô nâti nenarintsukalêkanâ ॥
Alagitê bhâgyamâyâ, &c.

IV.

Bâla prêyamunnâḍê bhramayiñchi nannu
Vâḍêlina suddulenne nnô galavu
Châla nâtô bâsalu chêsinâḍê jô
Bâlarô Murragôpâluḍu appâludu vâḍu ॥
Alagitê bhâgyamâyâ, &c.

IF HE IS DISPLEASED WITH ME.

Chorus.—If he is displeased with me, then so my happiness has been only so much[1]! If he is displeased.

I.

Ladies! How can I punish him?
If he is displeased, &c.

[1] *i.e.* it is over.

II.

How can I be to his liking who does not come to me to toy with me, but only to talk. O! friends! I do not know that he will ever look on my face again. God alone can protect me!

If he is displeased, &c.

III.

Ladies! Why does he not speak to me often? All my pleasure is over! Perhaps I am not as much to his liking as you are. O ye dark-haired ladies! He has forgotten all his sincerity in those good old days towards me.

If he is displeased, &c.

IV.

He captivated my heart when I was young, and there are several things, many things could I say of our dalliance! Many kinds of pleasure he has given me! Young ladies, where is my Muvvagôpâla now?

If he is displeased, &c.

Song No. 2.

AKKARO, YORVANI VARU SARASADU.

Chorus.—Akkarô yorvani vâru sarasaḍu gâdani yâdukoṇḍê âdukonêru ||

I.

Mrokkaduginavani muddumâṭalavâni
Muvvagôpâlasâmini yevarainagâni ||
Akkarô, &c.

II.

Râma vâni dalachinapuḍe ravika krikkirisi gubba
lêmo rommella nimdunê vâni mâtamtê
Nâ manasu pai pai nuṃḍunê vâni zûchitê
Navanidhul abbinatluṃḍunê yevarainagâni ||
Akkarô, &c.

III.

Mitirô vâdimdu vachchi velani gangiliñchitê
Yeṃtô badalika dîrunê vaśamu gâni
Kaṃṭu tâpamu tsallârunê yintêkaduṇâ
Santasamella jêkûrunu yevarainagâni ||
Akkarô, &c.

IV.

Pâni Muvvagôpâlvâdu paini chêyi vêsitê nâ
Mênu pulakaluppa tillunê nâ tamirêcha
Vânikê birudu chellunê vanu gudina
Manasum entô rañjillunê yevarainagâni ||
Akkarô, &c.

[2] For not being amorous enough.

WELL, SISTERS! IF SOME SPEAK ILL OF HIM.

CHORUS.—Well, sisters! If some speak ill of him,[2] let them keep their opinion.

I.

My Muvvagôpâlasâmi is worthy of my worship and is sweet of speech.

Well sisters, &c.

II.

Ladies, if I just think of him my gown is torn to tatters.[3] My breasts rise up and fill the whole space round about, and my mind soars higher and higher. If I but get a glimpse of him, I think I have obtained the nine kinds of wealth.

Well sisters, &c.

III.

If he just comes to me and exchanges kisses, how much of happiness comes upon me. All my heart becomes cooled (refreshed). Not only this, all my pleasure comes from the mere sight of him.

Well sisters, &c.

IV.

If my Muvvagôpâla place his hand lovingly on my body I begin to perspire with joy. He alone is able to please me, and my mind in his company feels ever delighted.

Well sisters, &c.

Song No. 3.

ADARINE MOVI.

Chorus.—Adarinê môvi tanakutânê vaddinê nivi ||

I.

Madilônâ vâḍêmô mantrinchêgâbôlu
Sudati Muvvagôpâlu zûchinadi modalu ||
Adarinê môvi, &c.

II.

Ili yêmô mâyâ chilaka vachchi bedariñch pôyâ.
Niduru kanikirâka ninnadalunnu!
Chedarinê chittamu chêtiga yêmi sêtu ||
Adarinê môvi, &c.

III.

Appuḍê kanina nannuvâdadu jîñchi nitanni
Voppaka nâvaralavaka nudata zûchi
Yuppa ñchi vâḍu suravuranênênô ||
Adarinê môvi, &c.

[3] *i.e.*, my body swells so with emotion.

IV.

Lîlatôniadu vachchi tagiliñchêné, mandu
Bálarô Muvvagôpáluḍu nanuguḍa
Ndágunêmêmi jálanni jêsunu ‖
Adaruné môvi, &c.

MY LIPS DANCE.

CHORUS.—My lips dance and of itself the knot of my garment becomes loose.*

I.

He sowed enchantment in my mind. O Lady, from the moment I saw my Muvvagôpála.
My lips dance, &c.

II.

This has surely been some enchantment. The parrot came to me and left me after confusing my mind. Sleep by visiting my eyes has troubled me since last night. My heart breaks! Friend, what shall I do?
My lips dance, &c.

III.

Ladies! Even then only he wanted to kiss me, and seeing that my people were a hindrance to it he went away in great anger.
My lips dance, &c.

IV.

He came here in sport and has sown the seeds of love in me! Young Ladies! Muvvagôpála has played a great trick upon me.
My lips dance, &c.

BRIDAL SONGS. (NALANGUPATTU).

Song No. 4.

NALUGIDA PILACHE JANAKI NINNU.

Chorus.—Nalugiḍa pilache Jánaki ninnu
Nalugiḍa pilache Jánaki ninnu ‖

I.

Nalugiḍa-pilachêra-naku-môhanáṅgi
Kokila-ráṇi-nalugiḍa-pilache-Jánaki-ninnu ‖
Nalugiḍa pilache, &c.

II.

Atturu-panníru-aladara-gandhamu
Ghumu-ghumu-rásana-tumya-nênu ‖
Nalugiḍa pilache, &c.

III.

Rárê Rukmaṇî-dêvî Rájivanêtrî
Rárêati-guṇa-śáli Rárê môhanángî ‖
Nalugiḍa pilache, &c.

IV.

Muddu-kumára-mukhamuddu bhávê
poddu páyana puttiśáli ní ráve ‖
Nalugiḍa pilache, &c.

V.

Gajyálu, vañjálu, ghelu ghellani rávê
Rávê ati guṇa śálî ravê môhanáṅgi ‖
Nalugiḍa piluche, &c.

O JANAKI, HE CALLED YOU.

CHORUS.—O Jánakî, he called you to decorate your feet.
O Jánakî, he called you to decorate your feet.

I.

O Jânakî, of captivating limbs, of speech resembling the voice of the *kôkila* (cuckoo), he called you to decorate your feet.
O Jânakî, he called you, &c.

II.

As I was taking *'atar* of roses, scented water, sandal and strong scents smelling *ghum ghum.*
O Jânakî, &c.

III.

Come, O Rukmaṇîdêvî. Come, O thou lotus-eyed and sweet-natured. Come, thou of captivating limbs.
O Jánakî, &c.

IV.

Give a kiss on the face of Muddukumâra.[1]
Come, O thou intelligent one, it is getting very late.
O Jânakî, &c.

V.

Come, walking slowly, that the small pendents of your anklets and armlets may sound *ghal ghal.* Come, O thou of the sweetest nature, and of captivating body.
O Jánakî, &c.

Song No. 5.

NALANGIDAVAYYA.

Chorus.—Nalaṅgidavayya Srî Nanda-kumâra
Tsálam yála Rukmaṇi-to-Satya-Hari-chôra ‖

I.

Lalita-nara-Ratna-Kalyáṇa guṇára.
Chalû ráru chai-to-kúḍi chelulu yedurnka ‖
Nalaṅgida vayya, &c.

* See above note

[1] The pearl bridegroom, said out of affection.

II.

Târûru-tasalalla tavangi sammetannu,
pûlu surulu jața banduku tsuțêra ||
Nalangiḍa vayya, &c.

III.

Nalangiḍa râra nâ sâmi voyyâra
Nalanguku râra nâ sâmi nâtha ||
Nalangiḍa vayya, &c.

IV.

Âkâsa-mârgamuna-sikhalu Râmayya Râma
Nîkulu jațalu pulu tsuțêrû ||
Nalangiḍa vayya, &c.

V.

Parimala gandhamulalanu ghumu ghum
vâsana pai salya kadara ||
Nalangiḍa vayya, &c.

DECORATE MY FEET.

Chorus.—Decorate my feet, O thou son of Nanda. Why should you be shy in sporting with Rukmaṇî? O thou truthful Hari, ever fond of stealthy dalliance.

I.

O thou that art adorned with a fine garland of the nine-valued gems, enough (of your shyness) come knit your hands in your (female) friends' and take your seat in front of me.
Decorate my feet, &c.

II.

Come and decorate me with *târaru, tasala,* and *tavangi.* I give my consent. Adorn me also with flowers, *gurul, jata* and *banduku.*[1]
Decorate my feet, &c.

III.

Come, decorate my feet, my most noble lord. O come decorate my feet, thou lord of my person.
Decorate my feet, &c.

IV.

The peacocks from the path of the sky decorate. O Ramayya, O Rama! with *jata,* flowers and ornaments,
Decorate my feet &c.

V.

Come rub over my body with sweet scents, with sweet things that smell strongly.
Decorate my feet, &c.

Song No. 6.

SRI RAMA JAYA.

I.

Śrî Râmâ jaya Sîte-manôhâra-kâruṇyasâra-karuṇâ-ni-jaya ||

II.

Bhâvinchi-chûḍarâma-Vasudêvakî-dêvulanu ||

VICTORY TO RÂMA.

I.

Victory to Râma, the prosperous, the captivatory of Sîtâ's heart, the stronghold of mercy, and the home of generosity.

II.

Be favourable to this son of Vasu and Dêvaki.[2]

Song No. 7.

JANDLEITIYADANE SRI RAMACHANDRADU.

Chorus.—Jandlettiyâḍanê Śrî Râmachandraḍu ||

I.

Pûla Jaṇḍlettiyâḍanê manu Chinni-Krishṇaḍu.
Madana-Janakuḍu-Mahânu prabhâvuḍu.
Kundlu-malya-pûlu-chendlu-chêta-katti ||
Jaṇḍlettiyâḍane, &c.

II.

Anda-janakuḍu-daṇḍaviranguḍu.
Kundlu-malyapûlu-chendlu-chêta-katti ||
Jandlettiyâḍane.

SRI RAMACHANDRA TOOK UP THE BALL AND ROLLED IT.

Chorus.—Śrî Râmachandra took up the ball and rolled it. Little Krishṇa took up the flower ball and played with it.

I.

The awakener of passion the most famous, took up in his hand the ball made of *kundlamalya* (jessamine) and other flowers.
Śrî Râmachandra took up, &c.

II.

The creator of the world, the extractor of respects from others took it up in his hand.
Śrî Râmachandra took up, &c.

[1] Names of various ornaments.
[2] Vâsudêva is a name for Krishṇa, and Râma is here invoked to grant favour to the newly married bridegroom, who is compared to Vâsudêva.

Song No. 8.

DASARATHATMAJA-NIKU-DANDAMBU.

Dásarathátmaja-níku-danḍambu-danḍambu
Vaidéhipati-níku-vandanambu
Kausalyasuta-níku-kalupa-kalyáṇambu
Jánakipati-níku-jayamu-jayamu
Antsu-varṇiñchi-bhajayiñchi-átmatalachi
Nilichi-sanmárga-mandaku-ninnu-raṅgu
Atadu-karuṇakanu-phalamanuṭa-návaśambé
Ráma-táraka-Daśaratha-Rája-tanaya ||

O SON OF DASARATHA. SALUTATION.

O Son of Daśaratha, Salutation! Salutation to thee. O lord of Vaidêhi! (Sîtâ) makes obeisance to thee. O Son of Kausalyâ! May there be prosperity to thee: O husband of Jânaki (Sîtâ). May there be victory to thee. Thus describing and worshipping thee and making thee part of my soul, if I follow the paths of virtue, is there any doubt but that I shall become favoured of thee? O, Râma, my helper in transgression! O Son of Daśaratha!

Song No. 9.

TSALLANI GUDISELLO.

Tsallani-guḍiselo-palaki-nchal=ádiná
Prabalanuḍi-bodikanna-pára-mukhamu
Paṭṭa-chíra-kaṭṭi-panḍl'úḍa-kaṭṭi
Patsala-páṇila-ravika-toḍiki
Ippa-púla-saramu-vedala-tárchi
T[illegible]-natta-mukkunaḍi
Kora-tsápala-[illegible]-kamarchi
Bahu-kalantani-bála-púla-padla-vadiná ||

IN THE HUTS OF POOR NEATHERDS.

In the huts of poor neatherds, the brother of Prabalanath (Kṛishṇa) sported amorously in the pools of delight. Turn your face and listen, O thou elder sister-in law. He decked the younger sister-in-law with silken cloths and broke her teeth.[1] He bade her put on garments ornamented with emeralds. He entangled her in a net of garlands of *ippapú* flowers. He adorned her nose with the best of pearly rings. He presented her with a fine mat (to sleep on) and remained with her for a very long time.

[1] Spoke angrily.

EPITHALAMIA.

"Open the door" Songs.

(Kaliki Kavatamu).

Song No. 10.

KALIKI KAVATAMU BANDHANA JESINA

I.

Kaliki kavâṭamu bandhana jêsina
kâraṇam emô Lakshmí-Níku-kára-
ṇam emô Lakshmí ||

II.

Karaṇam êmani yaḍigave nî madi
teliyaga lêdaṭa vôyi-Svámí-teliya
ga lêdaṭa vôyi ||

III.

Telisi teliyaka Chemchitanu jêriti pantam
êlanê Lakshmí-níku-pantam
êlanê Lakshmí ||

IV.

Páramátmá níku pantamul êṭiki
paduvadda pôyi. paduvadda pôyi ||

V.

Chemchitayani madi chimtana jêsêvu
chinta êlanê Lakshmí-níku
chinta êlanê Lakshmí ||

VI.

Komchavu játi Chemchita náku
charitiyanucha chimtêrá-náku
chavi, tiyanucha chimtêra ||

VII.

Kaliki kavâṭamu derichinapuḍê î
kamṭhaharamunu=ittu-ye kamtha
háramunu-ittu ||

VIII.

Kamṭhahâramu Chemchitakichchi
Chemchita guḍumu svâmi-á-
Chemchita guḍumu svámi ||

FOR YOUR SHUTTING THE DOOR!

I.

For your shutting the doors so very suddenly, what is the reason, O Lakshmî? What is the reason, O Lakshmî?

II.

My lord, you ask me the reason; As if your mind was not able to catch at it! As if your mind was not able to catch at it!

III.

Yes, I would know! What though by mistake, I partook of a kiss from the Chenchita woman! Why should you be so very obsti-

nate, O Lakshmî? Why should you be so very obstinate, O Lakshmi.

IV.

O Divine-souled! Why should I be obstinate towards you? You had better not be anxious to enter into my room, my lord! you had better not be anxious to enter into my room, my lord!

V.

About the Chenchita woman, why should you be so very particular, O Lakshmî? Why should you be so very particular, O Lakshmî?

VI.

That low caste Chenchita woman you have made my co-wife, my lord! You have made my co-wife, my lord!

VII.

If you will open the door soon I will give you this necklace, O Lakshmî! I will give you this necklace, O Lakshmi!

VIII.

You may give the necklace to the Chenchita woman, and live with her, my lord! And live with her, my lord!

FOLKLORE IN SOUTHERN INDIA

BY PANDIT NATESA SASTRI, M.F.L.S.

XXVI.—*The Conquest of Fate.*

In the Dakshiṇadêśa there lived a Brâhmaṇ boy who from his childhood was given a very liberal education in Sanskṛit. He had read so much in philosophy that before he reached the sixteenth year of his life he began to despise the pleasures of the world. Everything which he saw was an illusion (*mithyâ*) to him. So he resolved to renounce the world and to go to a forest, there to meet with some great sage, and pass his days with him in peace and happiness.

Having thus made up his mind, he left his home one day without the knowledge of his parents and travelled towards the Daṇḍakâraṇya. After wandering for a long time in that impenetrable forest, and undergoing all the miseries of a wood inhabited only by wild beasts, he reached the banks of the Tuṅgabhadrâ. His sufferings in his wanderings in a forest untrodden by human feet, his loneliness in the midst of wild beasts, his fears whether after all he had not failed in his search for consolation in a preceptor to teach him the higher branches of philosophy, came up one after another before his mind. Dejected and weary, he cast his glance forward as far as it could reach. Was it a reality or only imagination? He saw before him a lonely cottage of leaves (*parṇaśâlâ*). To a lonely traveller even the appearance of shelter is welcome, so he followed up his vision till it became a reality, and an aged hoary Brâhmaṇ, full fourscore and more in years, welcomed our young philosopher.

"What has brought you here, my child, to this lonely forest thus alone?" spoke in a sweet voice the hoary lord of the cottage of leaves.

"A thirst for knowledge, so that I may acquire the mastery over the higher branches of philosophy," was the reply of our young adventurer, whose name was Subrahmaṇya.

"Sit down my child," said the old sage, much pleased that in this Kaliyuga, which is one long epoch of sin, there was at least one young lad who had forsaken his home for philosophy.

Having thus seen our hero safely relieved from falling a prey to the tigers and lions of the Daṇḍakâraṇya, let us enquire into the story of the old sage. In the good old days even of this Kaliyuga learned people, after fully enjoying the world, retired to the forests, with or without their wives, to pass the decline of life in solemn solitude and contemplation. When they went with their wives they were said to undergo the *vânaprastha* stage of family life. The hoary sage of our story was undergoing *vânaprastha*, for he was in the woods with his wife. His name while living was Jñânanidhi. He had built a neat *parṇaśâlâ*, or cottage of leaves, on the banks of the commingled waters of the Tuṅgâ and Bhadrâ and here his days and nights were spent in meditation. Though old in years he retained the full vigour of manhood, the result of a well-spent youth. The life of his later years was most simple and sinless.

"Remote from man, with God he passed his days;
Prayer all his business, all his pleasures praise."

The wood yielded him herbs, fruits and

roots, and the river, proverbial[1] for its sweet waters, supplied him with drink. He lived, in fact, as simply as the bard who sang

"But from the mountain's grassy side
A guiltless feast I bring;
A bag with herbs and fruits supplied,
And water from the spring."

His faithful wife brought him these, while Jñânanidhi himself devoted his whole time to the contemplation of God.

Such was Jñananidhi—the abode of all knowledge—to whom the boy-philosopher, Subrahmaṇya, resorted. After questioning each other both were mightily pleased at the fortune which had brought them together. Jñânanidhi was glad to impart his hard-earned knowledge during his leisure moments to the young student, and Subrahmaṇya, with that longing which made him renounce the city and take to the woods eagerly swallowed and assimilated whatever was administered to him. He relieved his mother—for such he regarded his master's wife—of all her troubles, and used himself to go out to bring the fruits, herbs and roots necessary for the repasts of the little family. Thus passed five years, by which time our young friend had become learned in the many branches of Âryan philosophy.

Jñânanidhi had a desire to visit the source of the Tuṅgabhadrâ, but his wife was eight months advanced in her pregnancy. So he could not take her; and to take care of her he had to leave behind his disciple, Subrahmaṇya. Thus, after commending the old lady to Subrahmaṇya's care, and leaving for female assistance another sage's wife, whom he had brought from a distant forest, Jñânanidhi went his way.

The time for confinement was fast approaching, and the old lady even felt the pangs of labour. Her attendant remained with her inside the cottage, while Subrahmaṇya sat outside anxiously waiting to hear that his master's wife had been safely brought to bed.

Now, there is a strong belief among Hindus that Brahmâ, the great creator, writes on everyone's head at the time of his birth his future fortunes in life. He is supposed to do this just at the moment of birth, when the child leaves the womb of its mother and enters the world. Of course, the great God when he enters the room to discharge his onerous duty, is invisible to all human eyes. But the eyes of Subrahmaṇya were not exactly human. The supreme knowledge which Jñânanidhi had imparted to him made it easy for him to discern at once a person entering most impolitely the room in which his master's wife was being confined.

"Let your reverence stop here," said the disciple angrily though respectfully. The great God shuddered, for he had been in the habit of entering hourly innumerable buildings on his eternal rounds of duty, but never till then had a human being perceived him and asked him to stop. His wonder knew no measure, and as he stood bewildered the following reprimand fell on his ears: "Hoary Brâhmaṇ sage (for so Brahmâ appeared), it is unbecoming your age thus to enter the hut of my master, unallowed by me, who am watching here. My teacher's wife is in labour. Hold your steps."

Brahmâ hastily—for the time of inscribing the future fortune on the forehead of the baby to be born was fast approaching—explained to Subrahmaṇya who he was and what had brought him there. As soon as our young hero came to know the person who stood before him he rose up, and, tying his upper cloth round his hips as a mark of respect, went round the Creator thrice, fell down before Brahmâ's most holy feet and begged his pardon. Brahmâ had not much time. He wanted to go in at once, but our young friend would not leave the God until he explained what he meant to write on the head of the child. "My son!" said Brahmâ, "I myself do not know what my iron nail will write on the head of the child. When the child is coming into the world I place the nail on its head, and the instrument writes the fate of the baby in proportion to its good or bad acts in its former life. To delay me is merely wrong. Let me go in"

"Then," said Subrahmaṇya, "your Holiness must inform me when your Holiness goes out what has been written on the child's head." "Agreed," said Brahmâ and went in. After a moment he returned, and our young hero at the door asked the God what his nail had written.

[1] *Gaṅgâ snâna Tuṅgâ pâna.* The Ganges for bath and Tuṅgâ (Tuṅgabhadrâ) for drink

"My child!" said Brahmâ, "I will inform you what it wrote; but if you disclose it to anyone your head will split into a thousand pieces. The child is a male child. It has before it a very hard life. A buffalo and a sack of grain will be its livelihood. What is to be done? Perhaps it had not done any good acts in its former life, and as the result of its sin then it must undergo miseries now."

"What! Your supreme Holiness, the father of this child is a great sage. And is this the fate reserved to the son of a sage?" wept the true disciple of the sage.

"What have I to do with the matter? The fruits of acts in a former life must be undergone in the present life. But, remember, if you should reveal this news to anyone your head will split into a thousand pieces."

Having said this Brahmâ went away, leaving Subrahmaṇya extremely pained to hear that the son of a great sage was to have a hard life. He could not even open his lips on the subject, for if he did his head would be split. In sorrow he passed some days, when Jñânanidhi returned from his pilgrimage and was delighted to see his wife and the child doing well, and in the learned company of the old sage our young disciple forgot all his sorrow.

Three more years passed away in deep study, and again the old sage wanted to go on a pilgrimage to the sacred source of the Tuṅgabhadrâ. Again was his wife pregnant, and he had to leave her and his disciple behind with the usual temporary female assistance. Again, too, did Brahmâ come at the moment of birth, but found easy admittance as Subrahmaṇya had now become acquainted with him owing to the previous confinement. Again did Brahmâ take an oath from him not to communicate the fortunes of the second child, with the curse that if he broke his oath his head would split into a thousand pieces. This child was a female, and the nail had written that her fate was to be that of a courtezan! She would obtain her living after her attaining maturity by prostitution. Extremely vexed was our young philosopher. The most shameful and sinful life of lives was to be the lot of a daughter of a most holy sage. The thought vexed him to such a degree that language has no words to express it. After worrying a great deal he consoled himself with the soothing philosophies of the fatalists that fate alone governs the world.

The old sage in due course returned, and our young disciple spent two more happy years with him. After a little more than ten years had been thus spent the boy reached to five years and the girl to two. The more they advanced in years the more did the recollection of their future fate pain Subrahmaṇya. So one morning he humbly requested the old sage to permit him to go on a long journey to the Himâlayas and other mountains, and Jñânanidhi, knowing that all that he knew had been grasped by the young disciple, permitted him with a glad heart to satisfy his curiosity.

Our hero started, and after several years, during which he visited several towns and learned men, reached the Himâlayas. There he saw many sages, and lived with them for some time. He did not remain in one place, for his object was more to examine the world. So he went from place to place, and after a long and interesting journey of twenty years he again returned to the banks of the Tuṅgabhadrâ, at the very place where he lived for ten years and imbibed philosophical knowledge from Jñânanidhi. But he saw there neither Jñânanidhi nor his old wife. They had long since fallen a prey to the lord of death. Much afflicted at heart to see his master and mistress no more, he went to the nearest town, and there after a deal of search he found a coolie with a single buffalo. The fate which Brahmâ's nail had written on his master's son rushed into the mind of Subrahmaṇya. He approached the coolie, and, on closely examining him from a distance, our hero found distinct indications of his master's face in the labourer. His pain knew no bounds to see the son of a great sage thus earning his livelihood out of a buffalo. He followed him to his home, and found that he had a wife and two children. One sack of corn he had in his house and no more, from which he took out a portion every day and gave to his wife to be husked. The rice was cooked, and with the petty earnings of a coolie, he and his family kept body and soul together. Each time the corn in the sack became exhausted he used to be able to save enough to replenish it again with corn. Thus did he, according to the writing of Brahmâ's nail, pass his days. Kapâli was the name of this coolie, the sage's son.

"Do you know me, Kapâlî?" said our hero, as he remembered his name.

The coolie was astonished to hear his name so readily pronounced by one who was apparently a stranger to him, but he said, "I am sorry that I do not know you, sir."

Subrahmanya then explained to him who he was and requested him to follow his advice. "My dear son," said he, "Do as I bid you. Early morning to-morrow leave your bed and take to the market your buffalo and the corn-sack. Dispose of them for whatever amount they will fetch you. Do not think twice about the matter. Buy all that is necessary for a sumptuous meal from the sale-proceeds and eat it all up at once without reserving a morsel for the morrow. You will get a great deal more than you can eat in a day. But do not reserve any, even the smallest portion of it. Feed several other Brâhmaṇs with it. Do not think that I advise you for your ruin. You will see in the end that what your father's disciple tells you is for your own prosperity."

However, whatever the sage might say, Kapâlî could not bring himself to believe him. "What shall I do to feed my wife and children to-morrow if I sell everything belonging to me to-day?" Thus thought Kapâlî and consulted his wife.

Now she was a very virtuous and intelligent woman. Said she, "My dear lord, we have heard that your father was a great *mahâtmâ*. This disciple must equally be a *mahâtmâ*. His holiness would not advise us to our ruin. Let us follow the sage's advice."

When Kapâlî's wife thus supported the sage he resolved to dispose of his beast and sack the next morning, and he did so accordingly. The provisions he bought were enough to feed fifty Brâhmaṇs morning and evening as well as his own family. So that day he fed Brâhmaṇs for the first time in his life. Night came on, and after an adventurous day Kapâlî retired to sleep, but sleep he could not. Meanwhile Subrahmanya was sleeping on the bare verandah outside the house, and he came to the sage and said, "Holy sage, nearly half of the night is spent and there are only fifteen *ghatikâs* more for the dawn. What shall I do for the morrow for my hungry children? All that I had, I have spent. I have not even a morsel of cold rice for the morning."

Subrahmaṇya showed him some money that he had in his hand, enough to buy a buffalo and a sack of corn in case the great God did not help him, and asked him to spend that night, at least the remainder of it, in calm sleep. So Kapâlî with his heart at ease retired to rest.

He had not slept more than ten *ghaṭikâs* when he dreamt that all his family—his wife and children—were screaming for a mouthful of rice. Suddenly he awoke and cursed his poverty which had always made such thoughts prominent in his mind. There were only five *ghaṭikâs* for the lord of the day to make his appearance in the eastern horizon, and before this could happen he wanted to finish his morning bath and ablutions, and so he went to his garden to bathe at the well. The shed for the buffalo was erected in the garden, and it had been his habit daily before bathing to give fresh straw to his beast. That morning he thought he was spared that duty. But, wonder of wonders! He saw another buffalo standing there. He cursed his poverty again which imagined things impossible. How could it be possible that his beast should be standing there when he had sold it the previous morning? So he went into the shed and found a real buffalo standing there. He could not believe his eyes, and hastily brought a lamp from his house. It was, however, a real buffalo, and beside it was a sack of corn! His heart leapt with joy, and he ran out to tell to his patron, Subrahmaṇya. But when the latter heard it he said with a disgusted air, "My dear Kapâlî, why do you care so much? Why do you feel overjoyed? Take the beast at once with the corn-sack and sell them as you did yesterday."

Kapâlî at once obeyed the orders and changed the money into provisions. Again fifty Brâhmaṇs were fed the next day too, and nothing was reserved for the third day's use. Thus it went on in Kapâlî's house. Every morning he found a buffalo and a sack of corn, which he sold and fed Brâhmaṇs with the proceeds. In this way a month passed. Said Subrahmaṇya one day, "My dear Kapâlî, I am your holy father's disciple, and I would never advise you to do a thing prejudicial to your welfare. When I came to know that you were the son of the great sage, Jñânanidhi, and were leading so wretched a life, I came to

see you in order to alleviate your miseries. I have now done so, having pointed out the way to you to live comfortably. Daily must you continue thus. Do as you have been doing for the past one month, and never reserve anything, for if you reserve a portion all this happiness may fail, and you will have to revert to your former wretched life. I have done my duty towards you. If you become ambitious of hoarding up money this fortune may desert you."

Kapâlî agreed to follow the advice of the sage to the uttermost detail and requested him to remain in his house. Again said Subrahmanya, "My son! I have better work before me than living in your house. So please excuse me. But before leaving you I request you to inform me as to where your sister is. She was a child of two years of age when I saw her twenty years ago. She must be about twenty-two or twenty-three now. Where is she?"

Tears trickled down the eyes of Kapâlî when his sister was mentioned. Said he, "Do not, my patron, think of her. She is lost to the world. I am ashamed to think of her. Why should we think of such a wretch at this happy time?"

At once the inscription made by Brahmâ's nail rushed into Subrahmanya's mind and he understood what was meant. Said he, "Never mind; be open and tell me where she is."

Then her brother, Kapâlî, with his eyes still wet with tears, said that his sister, the daughter of the sage Jñânanidhi, was leading the worst of lives as a courtezan in an adjoining village, and that her name was Kalyâṇî.

Subrahmanya took leave of Kapâlî and his wife, after blessing his little children and again warning his friend. He had conferred what happiness he could upon his master's son, and now the thought of reforming his master's daughter reigned supreme in his heart. He went at once to the village indicated and reached it at about nightfall. After an easy search he found her house and knocked at the door. The door was at once opened, for Kalyâṇî's profession was such that never did wait for a second knock. But on that day she was astonished to see a face such as she could never expect to approach her house.

"Do you know me, Kalyâṇî?" said Subrahmanya, and she in reply said that she did not. He then explained who he was, and when she came to know that it was a disciple of her father that was standing before her she wept most bitterly. The thought that, after having been born of such a holy sage, she had adopted so wretched a life, the most shameful in the world, made her miserable at the heart. She fell down at his feet and asked to be forgiven. She then explained to him her extreme misery, and the hard necessity which had compelled her to take to her present way of living. He then consoled her and spoke thus: "My dear daughter! My heart burns to see that necessity drove you to this wretched life. But I can redeem you if you will only follow my advice. From this night you had better shut your door, and never open it to any other person except to him who brings to you a large measure full of pearls of the first water. You follow this advice for a day and I shall then advise you further." Being the daughter of a great sage, and having been compelled by necessity to take to a wretched life, she readily consented to follow the advice of her father's disciple when he promised to redeem her. She bolted the door, and as her customers used to visit her at night, several came that night and knocked. To all she stated from within that her condition was a large measure full of pearls. Her visitors, considering she had gone mad, went away. The night was almost drawing to a close and all her customers had gone away disappointed. Who was there in the village to give to her one measure full of pearls for one night with her? But as the nail of Brahmâ had fixed for her such a life as stated, some one was bound to comply with her terms. And as there was no human being who could do so, the God Brahma himself assumed the shape of a young man, and, with a measure full of pearls, visited her in the last watch of the night and remained with her.

When morning dawned he disappeared, and when Kalyâṇî explained to the disciple of her father the next morning that after all one person had visited her with a measure full of pearls on the previous night he was glad to hear of it. He knew that his suggestion was working well. Said he, "My dear daughter, you are pure hereafter from this day. There

are very few people in this world who could afford to give you a measure full of pearls every night. So, he that brought you the pearls last night must continue to do so every night, and he shall be hereafter your only husband. No other person must ever hereafter see your face, and you must obey my orders. You must sell all the pearls he brings you every day and convert them into money. This money you should spend in feeding the poor and other charities. None of it must you reserve for the next day, neither must you entertain a desire to hoard up money. The day you fail to follow my advice you will lose your husband, and then you will have to fall back on your former wretched life."

Thus said Subrahmaṇya, and Kalyâṇî agreed to strictly follow his injunctions. He then went to live under a tree opposite to her house for a month to see whether his plan was working well, and found it worked admirably.

Thus, after having conferred happiness, to the best of his abilities, on the son and daughter of his former master, Subrahmaṇya took leave of Kalyâṇî, and with her permission, most reluctantly given, he pursued his pilgrimage.

One moonlight night, after a long sleep, Subrahmaṇya rose up almost at midnight, and hearing the crows crowing he mistook it for the dawn and commenced his journey. He had not proceeded far, when on his way he met a beautiful person coming before him with a sack of corn on his head and a bundle of pearls tied up in the end of his upper cloth on his shoulder, leading a buffalo before him.

"Who are you, sir, walking thus in this forest?" said Subrahmaṇya.

When thus addressed the person before him threw down the sack and wept most bitterly. "See, sir, my head is almost become bald by having to bear to Kapâlî's house a sack of corn every night. This buffalo I lead to Kapâlî's shed, and this bundle of pearls I take to Kalyâṇî's house. My nail wrote their fate on their respective heads, and by your device I have to supply them with what my nail wrote. When will you relieve me of these troubles?"

Thus wept Brahmâ, for it was no other personage. He was the Creator and Protector of all beings, and when Subrahmaṇya had pointed out the way for his master's children and they had conquered fate, Brahmâ too was conquered. So the great God soon gave them eternal felicity and relieved himself of his troubles.

MISCELLANEA.

CALCULATIONS OF HINDU DATES.

No. 15.

In the Halsi stone inscription of the Kadamba kings Permâḍi-Śivachitta, and Vijayâditya-Vishṇuchitta, from the Belgaum District, published by me[1] in the *Jour. Bo. Br. R. As. Soc.* Vol. IX. pp. 262, 278 ff., the first date line 18f. is — samvṛitte Kalêḥ kâle kha-sapta-dvi-payônidhau pravardhamâne tad-râjyè tray[illegible] Virôdhini samvatsarè Śuchau mâse darśe sûrye Vṛihaspater dinê dakshiṇâyana-saṁkrântau [illegible] there has expired in the Kali age *the years numbered by the* [illegible] the [illegible] the [illegible] and the [illegible] in the [illegible] Virôdhin *samvatsara* which [illegible] the [illegible] Suchi, on the new moon [illegible] on the [illegible] of Vṛihaspati [illegible] into its progress to the south." And the inscription goes on to record a grant of the village of Sindavalli by Permâḍi-Śivachitta, in this the twenty-third year of their joint reign.

This gives us, as the basis of the calculation, Kaliyuga-Samvat 1270 expired, which by the Tables is equivalent to Śaka-Samvat 1091 expired; and the details of the Virôdhin samvatsara, current, of the Sixty-Year Cycle of Jupiter, the month Śuchi, which, from the [illegible] that is mentioned, denotes Âshâḍha[2] ordinarily, June-July; the dark-fortnight [illegible] the new-moon [illegible] Vṛihaspativâra, or Thursday; and the summer solstice, which we have to take as [illegible] the Karka-Samkrânti or entrance of the Sun into Cancer.

By the Southern System of the Cycle [illegible] from the locality and period of the record [illegible] of course the system that [illegible] to apply, the Virôdhin samvatsara [illegible] with the

[1] [illegible], when [illegible] Indian Inscriptions, No. 32.

[2] In Monier-Williams' Sanskrit Dictionary, Śuchi is [illegible] given [illegible] including the two months [illegible] J[illegible] and Âshâḍha.

indicated current year, Kaliyuga-Saṁvat 4271, equivalent to Śaka-Saṁvat 1092 (A. D. 1169-70). And, with the basis of Śaka-Saṁvat 1091 expired, from Prof K. L. Chhatre's Tables I find that, by the *Amânta* southern arrangement of the lunar fortnights, which is of course the arrangement that is required by the locality and period of the record, **the given tithi, Âshaḍha kṛishṇa 15, ended, as required, on Thursday, the 26th June, A. D. 1169**, at about 28 *ghaṭis*, 16 *palas*, after mean sunrise (for Bombay); and the **Karka-Saṁkrânti occurred on the same day**, at about 27 *gh.* 40 *p.*

No. 16.

In the same Halsi stone inscription, the second date (line 31f. is — saṁnivritte Kalch kâla śva[3]-sapta-dvi-payônidhau pravardhamâne tad-râjyê pañchaviṁśe samê Kharê Mâghê cha śud-dha-dvâdaśyâṁ mâsê vârê Vṛihaspatêh samprâptê Vaidhṛitau yôgê,—"when there has expired, in the Kali era, (*the year that is numbered by*) the Aśvins (two), (the numerals seven, (the numerals two, and the oceans (four); in the augmenting Khara (*saṁvatsara*), which is the twenty-fifth year in his reign, and in the month Mâgha; on the twelfth *tithi* of the bright fortnight; on the day of Vṛihaspati; when the Vaidhṛiti *yôga* has arrived." And the inscription goes on to record a grant of some lands at the village of Bhalika or Bhalikâ by Vijayâditya-Vishnuchitta or Vijayâditya II., in this the twenty-fifth year of the joint reign of him and his elder brother Permadi-Sivachitta.

This gives us, as the basis of the calculation, **Kaliyuga-Saṁvat 4272** expired, which by the **Tables is equivalent to Śaka-Saṁvat 1093 expired; and the details of the Khara samvatsara, current, of the** Sixty-Year Cycle; **the month** Mâgha (ordinarily January-February); the bright fortnight; the twelfth *tithi*, Vṛihaspativâra, or **Thursday**; and the **Vaidhṛiti yôga**

By the Southern System of the Cycle, the Khara samvatsara did coincide with the indicated current year, Kaliyuga-Saṁvat 4273, equivalent to Śaka-Saṁvat 1094 (A D 1171-72). But, with the basis of Śaka-Saṁvat 1093 expired, I find that the given *tithi*, Mâgha sukla 12, ended, not on a Thursday, but on Sunday the 9th January, A D 1172, at about 50 *ghaṭis*, 21 *palas*, after mean sunrise (for Bombay). And it is evident, therefore, **that there must be some mistake in this record**; unless the record itself is spurious, for which assumption, however, there are no *primâ-facie* grounds whatever

Now, the given *tithi*, while still belonging to the twenty-fifth regnal year, might fall in either the preceding or the following Kaliyuga (or Śaka) year; though, to meet either of these two cases, we should have to take a considerable liberty with the text, in altering the name of the *saṁvatsara* itself, as well as in making a change in the number of the Kaliyuga year. A correct result, however, cannot be obtained in this way. For, in the preceding year, with the basis of Śaka-Samvat 1092 expired, the given *tithi*, Mâgha śukla 12, ended on Wednesday, the 20th January, A D 1171, at about 12 *gh.* 59 *p.*, with no possibility of the Thursday being deduced from any other Tables. And, in the following year, with the basis of Śaka-Samvat 1094 expired, the given *tithi*, Mâgha sukla 12, ended on Saturday, the 27th January, A.D 1173, at about 37 *gh.* 5 *p.*

The next idea that occurs, is, that **the mistake is in respect of the name of the month**; and that, instead of *Mâghê*, we should have *Mârgê*, "in (the month) Mârga" (ordinarily November-December). And this seems to be the real state of the case. For, with the basis of Śaka-Samvat 1093 expired, **the given tithi, taken as Mârgasirsha sukla 12**, ended, as required, **on Thursday, the 11th November, A.D. 1171**, at about 15 *gh* 17 *p* This, therefore, is probably the date that was intended. And it is easy to see that the composer of the record may have been compelled, by metrical exigencies, to use the locative case of the rather unusual abbreviation *Mârga*, unusual at least in Southern India; and that, in the writing of the record on the stone, possibly from dictation, *Mârgê* may have been carelessly changed into *Mâghê* I should state, however, that Mr Sh. B. Dikshit informs me that the Vaidhṛiti *yôga* can never occur on Mârgasirsha śukla 12 and that it did occur on Mâgha sukla 12 in A.D. 1172, on Sunday, the 9th January. His suggestion is that, in the text, which is perfectly legible and free from doubt, *Vṛihaspatê* should be altered into any such word as [illegible], which would give "on the day of the sun," or "on Sunday." But I do not see my way to accepting this alteration of the text And, on the strength of Prof. Jacobi's remarks about the *nakshatras* at page 156-57 above, I do not think that the non-occurrence of the given *yôga* is necessarily fatal to accepting Thursday, the 11th November, A.D.

[3] Read *kâli* sa...—When I published this inscription, I read here *kâli kha*, and thought that the composer of this part of the record had carelessly [illegible] the words expressing the year in the first date, with[illegible] that two years had elapsed [illegible]. But I find now that the [illegible] of *kâli* was not engraved [illegible] lowing [illegible] not [illegible] as well as the number of the regnal year shews [illegible] should be [illegible] word [illegible] I have given.

1171, as the real English equivalent. This date, however, is one that might advantageously be subjected to further examination.

No. 17.

In the **Dêgâṁve stone inscription of the Kadamba king Permâḍi-Śivachitta, from the Belgaum District,** published by me in the *Jour. Bo. Br. R. As. Soc.* Vol. IX. pp. 262, 264ff., 287ff., the date (line 33f. in the version in Nâgarî characters, and line 42ff. in the version in Old-Kanarese characters) is:—

pañchasaptaty-adhika-dvisat-ôttara-chatuḥ-sahasrêshu Kaliyuga-saṁvatsarêshu parâvṛittêshu pravartamânê cha śrî-Kâdamba-Śivachitta-Vîra-Permâḍidêvasya pravardhamâna-vijaya-râjya-saṁvatsarê ashṭâviṁśe Jay-âhvayê Mârgasîrshê amâvâsyâṁ Bhaumavârê sûryagrahaṇa-parvaṇi,—"when there have expired four thousand years of the Kaliyuga, increased by two hundred raised by seventy-five; and while there is current the twenty-eighth year, having the appellation of Jaya, of the augmenting victorious reign of the glorious Kâdamba Śivachitta-Vîra-Permâḍidêva; in (the month) Mârgaśîrsha; on the new-moon *tithi*; on Tuesday; at the conjunction of an eclipse of the sun." And the inscription goes on to record a grant of the village of Dêgâṁve by Permâḍidêva's chief queen, Kamalâdêvî, in this twenty-eighth year of his reign.

This gives us, as the basis of the calculation, Kaliyuga-Saṁvat 4275 expired, which by the Tables is equivalent to Śaka-Saṁvat 1096 expired; and the details of **the Jaya saṁvatsara, current,** of the Sixty-Year Cycle; the month Mârgaśîrsha (ordinarily November-December); the new-moon *tithi, i.e.* the fifteenth *tithi* of the dark fortnight; Bhaumavâra, or **Tuesday**; and **an eclipse of the sun.**

By the Southern System of the Cycle, the Jaya saṁvatsara did coincide with the indicated current year, Kaliyuga-Saṁvat 4276, equivalent to Śaka-Saṁvat 1097 (A.D. 1174-75). And with the basis of Śaka-Saṁvat 1096 expired, and by the *Amânta* southern arrangement, I find that **the given tithi, Màrgasirsha kṛishṇa 15, ended, as required, on Tuesday, the 26th November, A.D. 1174,** at about 13 *ghaṭis*, 12 *palas*, after mean sunrise (for Bombay); **and on this day there was an eclipse of the sun,**[4] **which was visible in India.**

J. F. FLEET.

CATALOGUE OF COINS OF SOUTHERN INDIA.

We have received a very interesting circular, signed by Messrs. Sewell, Thurston, and Tufnell, names well known in all matters connected with antiquarian and archæological studies in **Madras, designed** to promote the **"systematic cataloguing of private collections of the ancient coins of South India."**

"Private collectors," of course, vary, from the learned numismatist, who has made coins the study of the leisure of a lifetime, to the gentleman who collects coins as he collects everything else that is curious and that comes within his reach. Such dilettante antiquarians as this last are much more common than many suppose, and much more frequent than might be expected. They possess treasures of the real value of which they have no conception. If the gentlemen above-mentioned can manage to get the collections of such persons sufficiently within their grasp to be able to catalogue and publish them, they will have conferred a real benefit on numismatology.

The dilettante collector may be properly styled an enemy to coins; but coins have, widely spread all over India, much worse foes. We mean those ladies and gentlemen who delight in wearing "funny old coins" as personal adornments. In this Journal (*ante*, Vol XIV. p. 325) there has been published a coin found on a sleeve-link (!); and the present writer on one occasion discovered a valuable coin on a watch-chain. However, try as they may, it is to be feared that the promoters of the scheme under consideration will succeed in capturing but very few of this class of "collector!"

Messrs. Sewell, Thurston, and Tufnell, have set about their business in a thoroughly systematic manner, and have accompanied their appeal to collectors of coins by an intelligible and simple form to fill in, together with a very practical paper of "instructions," from which we take the following easy method of taking a rough rubbing:—"Circular holes a little larger than the coin should be cut in strong cardboard. A piece of strong thin paper should then be placed over the coin and pressed down tight by means of the card. The paper should then be gently rubbed with a hard blacklead pencil, *not cut to a point*, but just rounded off."

The only point in the scheme that we would deprecate being carried out, is the proposal to start a new periodical devoted to this work. There are plenty of widely circulated magazines and journals of Societies in existence already, that would gladly publish whatever the promoters might send them as the result of their efforts. Indeed, so great are the calls on the purses of the scientific men of the day in the matter of

[4] See von Oppolzer's *Canon der Finsternisse*, pp. 228, 229, and Plate 114.

subscriptions to periodicals and Societies connected with their studies, that the best of them are loth to add to the already too long list. So that, unless a scientific subject is sufficiently wide in its scope to demand a journal to itself, the danger of starting a new journal is that its circulation will be very small and fail to reach those who would make the best use of its contents. It is, we submit, better for the South-Indian numismatists to use the pages of any established and widely circulated journal they may think best suited to them, than to start a journal of their own.

With this one criticism, we have much pleasure in giving the scheme our welcome and heartiest support.

WHALE AND AL-UWAL.

I have no reason to suppose that the usual derivation of the word **whale** from the Anglo-Saxon *hwæl* is incorrect; but the word used for this animal by the old Arab traveller, Mas'ûdî (A.D. 1601-1603), in his *Meadows of Gold and Mines of Gems*, is curiously similar, and I do not think that attention has previously been drawn to it. The following is a translation of one of the passages in which it occurs:—

"There is a fish in this sea called **al-Uwâl** الأول (whale), which is from four to five hundred *'Umarî* cubits الذراع العمري long; these are the cubits in use in this sea (the Sea of Zang بحرالزنج).[1] The usual length of this fish is one hundred باع fathoms (?). Frequently when it swims through the sea only the extremities of the two fins are to be seen, and it looks like the sail of a ship. Generally the head of the whale is out of water, and when it powerfully ejects water it gushes into the air more than one bowshot high. The vessels are afraid of it by day and night, and they beat drums (دبادب **dabâdab**) and wooden poles to drive it away. This fish drives with its tail and fins other fish into its open mouth, and they pass down its throat with the stream of water. When the whale sins God sends a fish about one cubit long, called *ash-Shak* (الشك); it adheres to the root of its tail, and the whale has no means to make itself free from it. It goes therefore to the bottom of the sea and beats itself to death; its dead body floats on the water and looks like a great mountain. The fish called *ash-Shak* adheres frequently to the whale. The whales, notwithstanding their size, do not approach vessels, and they take flight when they see this little fish, for it is their destruction."

A little further on the author mentions an island called "Whale Island" (جزيرة الرال), . . . I am unable to identify it.

The word *dabâdab*, used for a drum in the above passage, corresponds to the Old English "dub-a-dub," to beat a drum. Also, the blow on the drum. "The dub-a-dub of honour."—"Ram-a-dab and dub-a-dub the drummer beats away."

As this word probably owes its origin to an imitative sound the similarity even in two widely different languages is not surprising.

J. S. KING.

TABSERET-UL-AWAM.

This work, the full title of which is تبصرة العوام في معرفت مقالات الانام has been lithographed for the first time in Persia, at Tehrân, and bears A.H. 1304 in the colophon as the date of publication. It is sold bound up with the *Qisas-ul-'Ulamâ* of Muhammed *bin* Sulaimân Tenekâbuni, and is an **Exposition of the principal Creeds of the East.** Its author, a zealous Shî'ah, is **Sayyid Murtezâ**, styled **'Alem-ul-Huda.** In a MS copy which once passed through my hands the author was called Murtezâ Râzi ul-Husaini. The *Qisas-ul-'Ulamâ* which precedes it contains (page 314) a notice of Sayyid Murtezâ-ud-Dâ'î al-Râzî-ul-Husaini, and it makes him out to be the author of the *Tabserah*. At the same time it gives an anecdote of his relations with Abû Muhammed *bin* Muhammed al-Ghazâlî-ut-Tûsî (born A.H. 450, died A.H. 505), whilst Sayyid Murtezâ in his own work, in the chapter on the doctrines of the second sect of Islâm, those who call themselves Shî'ahs (page 65, line 27 of the edition under notice), mentions that Fakhr Râzî was of late times—that is to say modern in comparison with himself. Fakhr Râzî died A.H. 606.

Besides the present work, Sayyid Murtezâ translated a genealogy of some of the Imâms from the Arabic, a work written after A.H. 653, and entitled *Ansâb Nâmeh*.

The *Tabserah* is divided into the following twenty-six *bâbs*:—(1) On the doctrines of the philosophers. (2) Tenets of the Magi. (3) Tenets of the Jews, etc. (4) The doctrines of the different sects of Islâm. (5) On the Khavârij. (6) On the Mu'tazileh. (7) On the sect founded by Jahm *bin* Safrân. (8) On the Murji sect. (9) On the Najjârî sect. (10) On the Karâmî sect. (11) On the Mushabî sect. (12) On those who

[1] Gulf of Aden?

believe in the transmigration of souls. (13) On the doctrines of the Sunnis. (14) On the doctrines of the Maleki and Shâfa'i sects. (15) On the sect founded by Ibn Kalâb. (16) On Sûfis. (17) On the doctrines of the Qushairi. (18) Tenets of the Sunnis with regard to the *anbiyâ*. (19) Doctrines of the Shi'ahs. (20) On the discrimination of the true from the spurious. (21) On the Imâmiyeh. (22) On the story of the Bâgh-i-Fadek. (23) On certain *Hadîs*. (24) On the wrong doings of the Beni Umayyeh. (25) Anecdotes regarding the followers of justice and predestination. (26) On some of the tenets of the Imâmiyeh.

S. J. A. C.

A TABLE FOR THE ABDAPA TITHI-SUDDHI, AND TITHI-KENDRA.

In using **Prof. K. L. Chhatre's Tables for calculating the week-days, ending-times, and English dates, of Hindu tithis,**[1] some inconvenience is entailed by the number of the quantities that have to be taken, at starting, from his Table I. For instance, in calculating a date with the basis of Śaka-Saṁvat 1134 expired, we have to take out, under the three columns of the *Abdapa*, the *Tithi-suddhi*, and the *Tithi-kêndra*, the quantities for the years 0, 1000, 100, 30, and 4,—or altogether fifteen sets of figures,—and also to work out from Table II., by proportion, the correction in the *Tithi-śuddhi* and the *Tithi-kêndra*, before the operation is started by addition, in their respective columns, of all the quantities thus obtained.

The object of **the accompanying Table for the Abdapa, Tithi-suddhi, and Tithi-kêndra,** is to simplify this part of the work. The quantities given in it are all complete, including the *kshêpaka* or additive quantities for Saka-Saṁvat 0 expired. And, in working, for instance, with the expired year quoted above, all that is necessary is to take out, from the body of the Table, the quantities for the year 1130, with the corrections for the same year (21 4 *p.*, and 1 *gh.* 14 *p.*), as being a sufficiently close approximation, and to add the difference for 4 years from the subsidiary Table at the bottom of the page.

One revolution of the moon's *kêndra* is completed in 27 *tithis*, 59 *ghatis*, and 33.36 *palas*. But, to save trouble on the part of the calculator, it is taken to contain 28 *tithis*, in adding the quantities of the *Tithi-kêndra* for the several component parts of a given Śaka year,[2] no sensible error being introduced thereby in the ultimate results. In preparing the Tables, however, one revolution of the *kêndra* is taken to contain, not 28, but the correct number, viz. 27 *ti.* 59 *gh.* 33.36 *p.* Thus, for example, the variation in the *Tithi-kêndra* for 4 years is given (7 *ti.* 9 *gh.* 42.1 *p.* × 4 — 27 *ti.* 59 *gh.* 33.3 *p.* =) 0 *ti.* 39 *gh.* 15 *p.* (see Kâlasâdhana Table I. p. 10, last column) and, in preparing the accompanying Table, I have thought it desirable to follow the correct way. Thus, the *Tithi-kêndra* for Śaka-Saṁvat 1150 expired is 2 *ti.* 57 *gh.* 16 *p.* in my Table, while, by adding the quantities for the Śaka years 0, 1000, 100 and 50, and taking the remainder over the multiple of 28, it would have been 2 *ti.* 55 *gh.* 56 *p.* Accordingly, the figures of the *Tithi-kêndra* in my Table will differ a little from those that would be obtained from Prof. Chhatre's Tables; but the change is, it must have been seen, on the correct side. And the ultimate results worked out from my Table will sometimes be more correct than those obtained from Prof. Chhatre's Tables by about seven *palas*.

There is another point of difference. The correction in the *Tithi-śuddhi* and *Tithi-kêndra* given in Prof. Chhatre's Kâlasâdhana Table II. p. 12, is too vague, being for the interval of each thousand years. This Table II. is based on the correction in the moon's mean longitude and mean anomaly given in Table IV. p. 89,[3] in which that correction is given for the interval of each hundred years. It is evident, therefore, that the correction in the *Tithi-śuddhi* and *Tithi-kêndra*, calculated from the figures in Table IV. p. 89, will be more accurate. I calculated it accordingly, and have given it in the accompanying Table. This correction becomes nil in Saka-Saṁvat 1622 expired; and in other years from Śaka-Saṁvat 1560 to 1700 expired, it is less than one *pala* with respect to the *Tithi-śuddhi*, and less than five *palas* in the *Tithi-kêndra*, the latter causing a difference of half a *pala* at the utmost in the ultimate results. The correction for these years, therefore, is neglected in the accompanying Table.

The present Table, thus prepared from the details in Prof. K. L. Chhatre's Table I., with the modifications explained above, extends from Śaka-Saṁvat 0 to 1690, both expired. Table VII. in his book gives the required quantities for every year from Saka-Saṁvat 1700 to 1800, both expired. And the two Tables together will render it quick work to calculate any date in the first eighteen centuries of the Saka era.

SH. B. DIKSHIT.

[1] Grahasâdhanâchîṃ Kôshṭakeṃ, pp. 10 to 30; Kâlasâdhana Tables I. to XI.

[2] See *ante*, Vol. XVI. p. 115, col. 2, and p. 116, col. 2.

[3] See *ante*, Vol. XVI. p. 116, col. 2.

TABLE FOR THE ABDAPA, TITHI-SUDDHI, AND TITHI-KENDRA.

Expired Saka.	Abdapa.			Tithi-suddhi			Tithi-kendra		
	vâ.	gh	p.	ti.	gh.	p.	ti.	gh	p.
0	1	10	10·0	12	45 3	14·0 38·5	24	52 13	50 32
10	6	45	25·2	3	24 3	7·7 35·9	12	31 13	9 23
20	5	20	40·5	24	3 3	1·5 33·3	0	9 13	28 13
30	3	55	55·7	14	41 3	55·2 30·7	15	47 13	21 4
40	2	31	10·9	5	20 3	48·9 28·1	3	25 12	40 55
50	1	6	26·2	25	59 3	42·7 25·5	19	3 12	32 45
60	6	41	41·4	16	38 3	36·4 22·9	6	41 12	51 36
70	5	16	56·6	7	17 3	30·1 20·3	22	19 12	44 27
80	3	52	11·9	27	56 3	23·8 17·7	9	58 12	3 18
90	2	27	27·1	18	35 3	17·6 15·1	25	35 12	55 8
100	1	2	42·3	9	14 3	11·3 12·5	13	14 11	15 59
110	6	37	57·5	29	53 3	5·0 10·2	0	52 11	34 50
120	5	13	12·8	20	31 3	58·8 7·8	16	30 11	27 41
130	3	48	28·0	11	10 3	52·5 5·5	4	8 11	46 32
140	2	23	43·2	1	49 3	46·2 3·1	19	46 11	38 23
150	0	58	58·5	22	28 3	40·0 0·8	7	24 11	57 14
160	6	34	13·7	13	7 2	33·7 58·4	23	2 11	50 6
170	5	9	28·9	3	46 2	27·4 56·1	10	41 10	9 57
180	3	44	44·2	24	25 2	21·1 53·7	26	19 10	1 48
190	2	19	59·4	15	4 2	14·9 51·4	13	57 10	20 39

Expired Saka.	Abdapa			Tithi-suddhi.			Tithi-kêndra		
	va	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
200	0	55	14·7	5	43 2	8·6 49·0	1	35 10	39 30
210	6	30	29·9	26	22 2	2·3 46·8	17	13 10	31 22
220	5	5	45·2	17	0 2	56·1 44·5	4	51 10	51 13
230	3	41	0·4	7	39 2	49·8 42·3	20	29 10	43 5
240	2	16	15·6	28	18 2	43·5 40·0	8	8 9	2 56
250	0	51	30·9	18	57 2	37·3 37·8	23	45 9	55 48
260	6	26	46 1	9	36 2	31·0 35·5	11	24 9	13 40
270	5	2	1·3	0	15 2	24·7 33·3	27	2 9	6 31
280	3	37	16·6	20	54 2	18·4 31·0	14	40 9	25 23
290	2	12	31·8	11	33 2	12·2 28·8	2	15 9	44 14
300	0	47	47·0	2	12 2	5 9 26·5	17	56 9	37 6
310	6	23	2·2	22	50 2	59·6 24·4	5	34 8	56 58
320	4	58	17·5	13	29 2	53·4 22·2	21	12 8	49 50
330	3	33	32·7	4	8 2	47·1 20·1	8	51 8	8 42
340	2	8	47·9	24	47 2	40·8 17·9	24	29 8	0 34
350	0	44	3·2	15	26 2	34·6 15·8	12	7 8	19 26
360	6	19	18·4	6	5 2	28·3 13·6	27	45 8	12 19
370	1	54	33·6	26	44 2	22·0 11·5	15	23 8	31 11
380	3	29	48·9	17	23 2	15·7 9·3	3	1 8	50 5
390	2	5	4·1	8	2 2	9·5 7·2	18	39 7	42 55

DIFFERENCE FOR INTERMEDIATE YEARS.

1	1	15	31·5	11	3	53·4	7	9	42
2	2	31	3·0	22	7	46·7	14	19	24
3	3	46	34·6	3	11	40·1	21	29	6
4	5	2	6·1	14	15	33·5	0	39	15
5	6	17	37·6	25	19	26·8	7	48	57
6	0	53	9·1	6	23	20·2	14	58	39
7	1	48	40·7	17	27	13·6	22	8	21
8	3	4	12·2	28	31	6·9	1	18	29
9	4	19	43·7	9	35	0·3	8	28	11
[10	5	35	15·2	20	38	53·7	15	37	52]

CONTINUATION OF TABLE FOR THE ABDAPA, TITHI-SUDDHI, & TITHI-KENDRA

Expired Saka	Abdapa.			Tithi-suddhi.			Tithi-kendra.		
	va.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
400	0	40	19·3	28	11	3·2	6	18	2
					2	5·0		7	17
410	6	15	34·5	19	19	56·9	21	55	51
					2	3·1		7	40
420	4	50	49·8	9	58	50·7	9	34	14
					2	1·2		7	33
430	3	26	5·0	0	37	44·4	25	12	6
					1	59·3		7	26
440	2	1	20·2	21	16	38·1	12	50	25
					1	57·4		7	19
450	0	36	35·5	11	55	31·9	0	28	11
					1	55·5		7	12
460	6	11	50·7	2	34	25·6	16	6	37
					1	53·6		7	5
470	4	17	5·9	23	13	19·3	3	14	56
					1	51·7		6	58
480	3	22	21·2	13	52	13·0	19	22	18
					1	49·8		6	51
490	1	57	36·4	4	31	6·8	7	1	7
					1	47·9		6	44
500	6	32	51·7	25	10	0·5	22	39	0
					1	46·0		6	37
510	6	8	6·9	15	48	54·2	10	17	19
					1	44·3		6	30
520	4	43	22·2	6	27	48·0	25	55	12
					1	42·5		6	24
530	3	18	37·4	27	6	41·7	13	33	31
					1	40·8		6	17
540	1	53	52·6	17	45	35·1	1	11	50
					1	39·0		6	11
550	0	29	7·9	8	24	29·2	16	49	12
					1	37·3		6	4
560	5	4	23·1	29	3	22·9	4	28	1
					1	35·5		5	57
570	4	39	38·3	19	42	16·6	20	5	51
					1	33·8		5	51
580	3	14	53·6	10	21	10·3	7	44	13
					1	32·0		5	44
590	1	50	8·8	1	0	4·1	23	22	5
					1	30·3		5	38

Expired Saka	Abdapa.			Tithi-suddhi.			Tithi-kendra.		
	va.	gh.	p.	ti.	gh.	gh.	ti.	gh.	p.
600	0	25	21·0	21	38	57·7	11	0	23
					1	28·5		5	31
610	6	0	39·2	12	17	51·4	26	38	16
					1	26·9		5	25
620	1	35	54·5	2	56	45·2	11	16	35
					1	25·2		5	19
630	3	11	9·7	23	35	38·9	1	54	27
					1	23·6		5	13
640	1	46	24·9	14	14	32·6	17	32	46
					1	21·9		5	7
650	0	21	40·2	4	53	26·4	5	11	6
					1	20·3		5	1
660	5	56	55·4	25	32	20·1	20	48	58
					1	18·6		4	55
670	4	32	10·6	16	11	13·8	8	27	18
					1	17·0		4	49
680	3	7	25·9	6	50	7·5	21	5	9
					1	15·3		4	43
690	1	42	41·1	27	29	1·3	11	43	28
					1	13·7		4	37
700	0	17	56·3	18	7	55·0	27	21	22
					1	12·0		4	31
710	5	53	11·5	8	46	48·7	14	59	41
					1	10·5		4	25
720	4	28	26·8	29	25	42·5	2	38	1
					1	9		4	20
730	3	3	42·0	20	4	36·2	18	15	53
					1	7·5		4	14
740	1	38	57·2	10	43	29·9	5	54	12
					1	6		4	9
750	0	14	12·5	1	22	23·7	21	32	5
					1	4·5		4	3
760	5	49	27·7	22	1	17·4	9	10	24
					1	3·0		3	57
770	4	24	42·9	12	40	11·1	24	48	16
					1	1·5		3	52
780	2	59	58·2	3	19	4·8	12	26	35
					1	0·0		3	46
790	1	35	13·4	23	57	58·6	0	4	54
						58·5		3	41

DIFFERENCE FOR INTERMEDIATE YEARS.

Year	va.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
1	1	15	31·5	11	3	53·1	7	0	42
2	2	31	3·0	22	7	16·7	14	19	24
3	3	46	34·6	3	11	40·1	21	29	6
4	5	2	6·1	14	15	33·5	0	39	15
5	6	17	37·6	25	19	26·8	7	48	57
6	0	33	9·1	6	23	20·2	14	58	39
7	1	48	40·7	17	27	13·6	22	8	21
8	3	4	12·2	28	31	6·9	1	18	29
9	4	19	43·7	9	35	0·3	8	28	11
[10	5	35	15·2	20	38	53·7	15	37	52]

CONTINUATION OF TABLE FOR THE ABDAPA, TITHI-SUDDHI, & TITHI-KENDRA.

Expired Śaka.	Abdapa.			Tithi-śuddhi.			Tithi-kêndra.		
	vâ.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
800	0	10	28·7	14	36	52·3 57·0	15	42 3	47 35
810	5	45	43·9	5	15	46·0 55·7	3	21 3	6 30
820	4	20	59·2	25	54	39·8 54·4	18	58 3	59 25
830	2	56	14·4	16	33	33·5 53·1	6	37 3	18 19
840	1	31	29·6	7	12	27·2 51·8	22	15 3	20 14
850	0	6	44·9	27	51	21·0 50·5	9	53 3	30 9
860	5	42	0·1	18	30	14·7 49·2	25	31 3	22 4
870	4	17	15·3	9	9	8·4 47·9	13	9 2	41 59
880	2	52	30·6	29	48	2·1 46·6	0	48 2	0 53
890	1	27	45·8	20	26	55·9 45·3	16	25 2	52 48
900	0	3	1·0	11	5	49·6 44·0	4	4 2	11 43
910	5	38	16·2	1	44	43·3 42·9	19	42 2	3 39
920	4	13	31·5	22	23	37·1 41·8	7	20 2	23 35
930	2	48	46 7	13	2	30·8 40·7	22	58 2	15 30
940	1	24	1·9	3	41	24·5 39 6	10	36 2	34 26
950	6	59	17·2	24	20	18·3 38·5	26	14 2	27 22
960	5	34	32·4	14	59	12·0 37·4	13	52 2	46 18
970	4	9	47·6	5	38	5·7 36·3	1	31 2	5 14
980	2	45	2·9	26	16	59·4 35·2	17	8 2	57 9
990	1	20	18·1	16	55	53·2 34·1	4	47 2	16 5

Expired Śaka.	Abdapa.			Tithi-śuddhi.			Tithi-kêndra.		
	vâ.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
1000	6	55	33·3	7	34	47·0 33·0	20	25 2	8 1
1010	5	30	48·5	28	13	40·7 32·1	8	3 1	28 58
1020	4	6	3·8	18	52	34·5 31·1	23	41 1	20 55
1030	2	41	19·0	9	31	28·2 30·2	11	19 1	40 51
1040	1	16	34·2	0	10	21·9 29·2	26	57 1	31 45
1050	6	51	49·5	20	49	15·7 28·3	14	35 1	52 45
1060	5	27	4·7	11	28	9·4 27·3	2	14 1	11 42
1070	4	2	19·9	2	7	3·1 26·4	17	52 1	3 39
1080	2	37	35·2	22	45	56·8 25·4	5	30 1	22 35
1090	1	12	50·4	13	24	50·6 24·5	21	8 1	13 32
1100	6	48	5·6	4	3	44·3 23·5	8	46 1	33 29
1110	5	23	20·8	24	42	38·0 22·7	24	24 1	25 26
1120	3	58	36·1	15	21	31·8 21·9	12	2 1	45 22
1130	2	33	51·3	6	0	25·5 21·1	27	40 1	37 19
1140	1	9	6·5	26	39	19·2 20·3	15	18 1	56 16
1150	6	44	21·8	17	18	13·0 19·5	2	57 1	16 12
1160	5	19	37·0	7	57	6·7 18·7	18	35 1	8 9
1170	3	54	52·2	28	36	0·4 17·9	6	13 1	27 6
1180	2	30	7·5	19	14	54·1 17·1	21	51 1	19 3
1190	1	5	22·7	9	53	47·9 16·3	9	29	38 59

DIFFERENCE FOR INTERMEDIATE YEARS.

1	1	15	31·5	11	3	53·4	7	9	42
2	2	31	3·0	22	7	46·7	14	19	24
3	3	46	34·6	3	11	40·1	21	29	6
4	5	2	6·1	14	15	33·5	0	39	15
5	6	17	37·6	25	19	26·8	7	48	57
6	0	33	9·1	6	23	20·2	14	58	39
7	1	48	40·7	17	27	13·6	22	8	21
8	3	4	12·2	28	31	6·9	1	18	29
9	4	19	43·7	9	35	0·3	8	28	11
[10	5	35	15·2	20	38	53·7	15	37	52]

CONTINUATION OF TABLE FOR THE ABDAPA, TITHI-SUDDHI, & TITHI-KENDRA.

Expired Śaka.	Abdapa.			Tithi-śuddhi.			Tithi-kêndra.		
	vâ.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
1200	6	40	38·0	0	32	41·6 15·5	25	7	31 56
1210	5	15	53·2	21	11	35·3 14·9	12	45	50 54
1220	3	51	8·5	11	50	29·1 14·2	0	24	10 51
1230	2	26	23·7	2	29	22·8 13·6	16	2	2 49
1240	1	1	38·9	23	8	16·5 12·9	3	40	21 47
1250	6	36	54·2	13	47	10·3 12·3	19	18	14 44
1260	5	12	9·4	4	26	4·0 11·6	6	56	33 42
1270	3	47	24·6	25	4	57·7 11·0	22	34	25 40
1280	2	22	39·9	15	43	51·4 10·3	10	12	44 38
1290	0	57	55·1	6	22	45·2 9·7	25	50	36 35
1300	6	33	10·3	27	1	38·9 9·0	13	28	55 33
1310	5	8	25·5	17	40	32·6 8·5	1	7	14 31
1320	3	43	40·8	8	19	26·4 8·0	16	45	7 29
1330	2	18	56·0	28	58	20·1 7·5	4	23	26 27
1340	0	54	11·2	19	37	13·8 7·0	20	1	18 25
1350	6	29	26·5	10	16	7·6 6·5	7	39	38 23
1360	5	4	41·7	0	55	1·3 6·0	23	17	30 22
1370	3	39	56·9	21	33	55·0 5·5	10	55	49 20
1380	2	15	12·2	12	12	48·7 5·0	26	33	41 18
1390	0	50	27·4	2	51	42·5 4·5	14	12	0 16

Expired Śaka.	Abdapa.			Tithi-śuddhi.			Tithi-kêndra.		
	vâ.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
1400	6	25	42·6	23	30	36·2 4·0	1	50	20 14
1410	5	0	57·8	14	9	29·9 3·7	17	28	12 13
1420	3	36	13·1	4	48	23·7 3·4	5	6	32 12
1430	2	11	28·3	25	27	17·4 3·1	20	44	24 11
1440	0	46	43·5	16	6	11·1 2·8	8	22	43 10
1450	6	21	58·8	6	45	4·9 2·5	24	0	36 9
1460	4	57	14·0	27	23	58·6 2·2	11	38	55 9
1470	3	32	29·2	18	2	52·3 1·9	27	16	47 8
1480	2	7	44·5	8	41	46·0 1·6	14	55	6 7
1490	0	42	59·7	29	20	39·8 1·3	2	33	25 6
1500	6	18	15·0	19	59	33·5 1·0	18	11	17 5
1510	4	53	30·2	10	38	27·2	5	49	37
1520	3	28	45·5	1	17	21·0	21	27	29
1530	2	4	0·7	21	56	14·7	9	5	48
1540	0	39	15·9	12	35	8·4	24	43	40
1550	6	14	31·2	3	14	2·2	12	22	0
1560	4	49	46·4	23	52	55·9	0	0	19
1570	3	25	1·6	14	31	49·6	15	38	12
1580	2	0	16·9	5	10	43·3	3	16	30
1590	0	35	32·1	25	49	37·1	18	54	22
1600	6	10	47·3	16	28	30·7	6	32	42
1610	4	46	2·5	7	7	24·4	22	10	34
1620	3	21	17·8	27	46	18·2	9	48	54
1630	1	56	33·0	18	25	11·9	25	26	46
1640	0	31	48·2	9	4	5·6	13	5	5
1650	6	7	3·5	29	42	59·4	0	43	25
1660	4	42	18·7	20	21	53·1	16	21	17
1670	3	17	33·9	11	0	46·8	3	59	36
1680	1	52	49·2	1	39	40·5	19	37	28
1690	0	28	4·4	22	18	34·3	7	15	47

DIFFERENCE FOR INTERMEDIATE YEARS.

Year	vâ.	gh.	p.	ti.	gh.	p.	ti.	gh.	p.
1	1	15	31·5	11	3	53·4	7	9	42
2	2	31	3·0	22	7	46·7	14	19	24
3	3	46	34·6	3	11	40·1	21	29	6
4	5	2	6·1	14	15	33·5	0	39	15
5	6	17	37·6	25	19	26·8	7	48	57
6	0	33	9·1	6	23	20·2	14	58	39
7	1	48	40·7	17	27	13·6	22	8	21
8	3	4	12·2	28	31	6·9	1	18	29
9	4	19	43·7	9	35	0·3	8	28	11
[10	5	35	15·2	20	38	53·7	15	37	52]

BOOK NOTICE.

PROF. WEBER'S EDITION OF THE PARASIPRAKASA.[1]

A **Pâr'sî Pâr'kâs** of Vêdânga Râya (Bêdâng Rây)[2] has been known to scholars since the publication of Garcin de Tassy's *History of the Language and Literature of Hindûstân,* in page 519 of the first volume of which, an account is given of it. This work was written for Shâh Jahan about the middle of the 17th century, and according to Garcin de Tassy described the manner of counting the months, &c., adopted by Hindus and Musalmâns. Prof Weber now introduces us to an older and apparently more complete Persian-Sanskrit Glossary written in the latter portion of the 16th century for the emperor Akbar. The work bears the same name, the *Pârasî-Prakâśa*, and was written by a Śâkadvîpîya Brâhman named **Krishṇadâsa.**

In his introduction to this edition, Prof Weber gives an account of the traces of the **relations between India and Persia** which can be gathered **from Sanskṛit literature.** First, there are reminiscences of a common Perso-Âryan and Indo-Âryan period in the Vêda. Next we have the historical record of Indian Auxiliaries with the Achæmenides in their struggles with the Greeks From this time dates the introduction of words like *Yavana*, *Bâvêru* (Babylon), and *Mudrâ*. The last word Prof Weber connects with the cuneiform *Mudrâya*, the ancient name for Egypt. Again, perhaps the *Nrisiṁha* of the Vaishnavas may be referred to man-headed lions of Nineveh, Persepolis, &c. The word *Bâhlî* (first met in the *vârtt.* to Pâṇini, 4. 2. 99) is also to be referred to the old Persian Bâkhtri (Bactria).

The **Magas,** the representatives of the worship of Mithra, are, Prof. Weber thinks, perhaps related to the Βραχμανοι Μαγοι of Ptolemy, at any rate we have Varâhamihira's authority that a Magian colony had long before his time obtained a secure foot-hold in India; and the modern Śâkadvipîya Brâhmans refer to that tribe their origin.

The Gupta inscriptions disclose intimate relations with the **Pahlavas** or Parthian Arsacides, and with the **Pârasîkas** or Persian Sasanides. And from this period date a whole series of words of a political and of a military character used in Sanskṛit, such as *Shâhânushâhi*, *Kshatrapa* (a Satrap), *pîlu* (an elephant, فيل), and (? *taravâra* (a sword).

The **Muhammadan invasion** was the means of introducing many foreign words, especially Arabic and Turkish, into Sanskrit Such were several astronomical and medicinal terms, and also, curiously enough, many words used in the game of chess, though it is undoubtedly of Indian origin.

Lastly, several **foreign words** have crept into the collections of fables from the popular idiom And to these may be added many foreign words borrowed and then transformed into possible Sanskrit terms through the influence of **popular etymology.** Examples of this last are *Suratrâṇa*, 'Sultân', *Mausula*, 'Muslim'; *Mudgala*, 'Mughal'; *Śêsha Sêkha*), 'Sêkh'; *Miśra*, 'Mirza' and so on

I may perhaps be permitted to carry on this a step further. I have a Sanskrit translation of the Arabian Nights in my possession, entitled the **Ârabya-Yaminî.** The translator has borrowed the Arabic names of places and persons as they stand, transliterating them into Nâgarî, and then giving them, in the commentary, Sanskṛit derivations!! Examples of this ludicrous word-play are Sahariyâra (شهريار), which he derives from *Saha*, 'strength,' *rai*, 'wealth', and *âra*, 'a corner,' *i. e.* 'he in whose inmost recesses are power and wealth.' The name of the town of Samarkand (*tatpradêśântargatapradhânanagarê Samarakandâbhidhânê*) is explained as follows '*samaraiya yuddhiya*; *kanda* (√ *kand*; to cry.) *âhvânam yatra dêśê, sa Samarakandaḥ*. The meeting between the queen and her lover Mas'ûd (مسعود), is thus described '*paramtu râjamahishî karatâlaprâdînaparaḥsaram "Mâsûda Mâsûd"ty uktvâhvânaṁ kṛtavatî*, to which is added the following piece of etymology, '*Mâsûda iti Mâ ... va Lakshmîr eva; sûdaḥ pâchakaḥ*, *iti Mâsûdaḥ*!!!

Prof. Weber next gives a sketch of the history of the **Sakadvipiya Brâhmaṇs,** and shows the probability that in ancient times Iranian strangers entered India from *Śâkadvîpa* and were admitted directly into the ranks of the Brâhmans I may mention here that, in Bihâr, at the Śrâddha ceremony all Brâhmans may be fed by the performer, *except Śâkadvîpîyas*. Even Jyôtisha Brâhmans who are below the Śâkadvipîyas in caste, are fed, but never the latter.

The *Pârasîprakâśa* consists of about 260 *ślôkas*, in which 1055 Persian words are explained. As a rule, each quarter-verse explains a different word; but this is not universal The Persian word is given in the nominative, and the Sanskṛit meaning usually in the locative. It is written in the customary *kôśa* form with ten *vargas*, but the

[1] *Über den Pârasîprakâśa des Krishṇadâsa*. Von A. *Weber*. Berlin 1887. Verlag der Königl. Akademie der Wissenschaften. In commission bei Georg Reimer.

[2] I have never seen Bêdâng Rây's work, but, judging from its being noticed by Garcin de Tassy, I presume it was in the Vernacular Prof Weber who knows it well can no doubt give us further information on the subject.

names of these latter only partially agree with their contents.

The following account of a portion of the first (*svargavarga*) will act as a specimen of the whole. The author begins, as a Śâkadvîpîya Brâhman, with the names of the sun (here the influence of Akbar's Ilâhî religion shows itself) and then gives the names of God and of the evil spirits, viz. *dêvatâ*, *paramêśvara* and *asura*, corresponding to *ilâhî*, *nûrâî*, *khudâya*, *iblîsa* and *śaitâna* respectively. He mentions neither Allâh, nor Brahman, nor Vishṇu, nor Śiva. *Yama*, *apsaras* and *râkshasa*, are given as the equivalents of *Yavraîla* (the angel Gabriel!), *parî* and *âdamikhôra*. Then we have nectar (*pîyûsha*) and the *kalpataru*, corresponding to *âvahayâta* and *tûvâ*. Paradise is *svarga* (= *vihiśta*). Hell is *naraka* (= *dôjakha*), and Adam and Eva are Manu and his *grihêśvarî* (!).

The Persian with which the author deals is the Persian (or rather the Ûrdû) of Hindustân, full of Arabic and Turkî words, and sometimes even of words of Hindu origin. Specimens of the latter class, which are given by the author as Persian, are words like *varsâtaṁ* (the rains), *jharôkhâ* (a window), *tamvû* (a tent) and so on.

Owing to the Persian words being transcribed in the Nâgarî character, difficulty has been experienced by the editor in identifying some of them, especially as the Sanskrit translations were often by no means clear. One or two of these doubtful words are capable of being explained by a reference to the modern vernacular: *e.g.* (18) *tâkah dîpâlayê*. The latter word is new to Professor Weber, and he compares it with *dîpâlî*, 'a row of lamps;' *tâka* he fails to identify. It is the Arabic طاق, 'a recess in a wall.' The *tâq* is used especially for putting a lamp into, and hence it is also call *dîwâr* or *dîwâl*, a corruption of *dîpâlaya*, 'lamp-house'. *Dîwâr* does not occur in Hindustânî dictionaries, being confounded with the Persian *dîwâr*, 'a wall.' It is, however, in common use

(295) *hujarah tu guphâyâm syât*. As Professor Weber accurately points out, حجره means 'a courtyard;' regarding *guphâ* he says, 'it is as yet unknown in Sanskrit, *cf.* Marâṭhî *gumphâ*, an arbour, a bower, a cavern, a cave.' He suggests that *guphâ* in Sanskrit means 'a courtyard.' I would suggest that *guphâ* in Sanskrit must have meant 'a cave,' cf. *guhâ*, which is apparently a Prâkritized form of it, or else *guphâ* is a falsely resuscitated Sanskrit manufacture from (the apparently Prâkrit) *guhâ*. Anyhow, *guphâ* in mediæval Hindî means 'a cave,' and nothing else. How is it then the equivalent of *hujara*, 'a court-yard? I think the answer will be found in the fact that Krishṇadâsa dealt with the Persian of India. In colloquial Hindustânî I have only met the word in one sense,—equivalent to the slang use of the English 'den.' It is used in phrases like the following,—'*tum din rât hujarê mêṅ ghusê rahtê hô*,' of a man who boorishly or sulkily shuts himself up in his house, and refuses to see any one,—"You remain day and night hidden in your den." The metaphorical use of this word may well be explained by the Hindi *guphâ* [1]

(313) *jînah pârôhaṇê*. Prof. Weber says that the use of *pârôhana* (i.e. *prârôhaṇa*) in the sense of 'saddle' is unsupported by other authorities. Here, I think, we have another instance of the author building-up a pseudo-Sanskrit word from the vernacular. *Parôhan* in Hindî meananything on which a person rides. Thus, in a well-known proverb, a donkey is called the washerman's *parôhan* (see *Bihâr Peasant Life* § 393.) The word as explained by natives would include the meaning of 'saddle.' In 605, *paryâṇa* also is given as the equivalent of *jîna*. The reading of G. *palânê* is instructive as giving the form used by Vidyâpati Ṭhâkur, who wrote in the vernacular, A.D. 1400. Vidyâpati has even a verbal root *palâna* 'to saddle.'[2]

(385) *Khârishaṁ kaṁdûshu rasakêshu cha.*—Prof. Weber suggests *kaṇḍû* (pl.) as meaning 'itching places;' and *rasaka* (also in the plural) as 'moist itching wounds.' In Bihâr both words are still used, to express different varieties of the same disease. *Kaṇḍû* is 'dry itch,' and *ras* is 'moist itch.'

(478) *vâlâpôśas tu tûlikâ*. *Bâlâpôsh* is 'an outer garment.' The Sanskrit dictionaries give *tûlikâ* as meaning 'a mattress filled with cotton.' The meaning of 'outer garment' is not given. Again the missing link will be found in the vernacular. In south-east Bihâr *turâi* means a light quilt containing less than a pound of cotton. These quilts are always worn as outer garments. Cf. *Bihâr Peasant Life*, § 731.

I regret that time does not permit me to make more than these few suggestions, which, I need hardly say, are offered with the heartiest admiration for the learning and acumen displayed in this most useful book. Prof. Weber is to be congratulated on a work which, if possible, lends an enhanced lustre to his great reputation.

G. A. GRIERSON.

---

[1] [*Hujrâ* in the Punjab is used as the "abode," i.e. a dark mud hut, of a Muhammadan ascetic.—R. C. T.]

[2] Bid 82. 3, *bâghakâ chhâla jê basaha palânala*, 'inasmuch as he has saddled his bullock with a tiger's skin."

THE BAKHSHALI MANUSCRIPT.

BY DR. A. F. RUDOLF HOERNLE.

(*Continued from p. 48.*)

No. II.

TWO more plates were to have illustrated my paper on **the Bakhshâlî Manuscript,** published in the February number of this Journal. Through an unfortunate misadventure they were not forthcoming at that time, and are now given as a supplement.

The page, figured on Plate II, is the obverse of the leaf the reverse page of which is figured on Plate I, previously published. It contains another portion of sûtra 25, and reads as follows[1] :—

TEXT.

1 . tê dhanaṁ ǀ yasya tanmayatâ chakshu . . . . vada ǀ. . . . .
2 apahṛita-śulka-piṇḍaṁ 24 ǁ karaṇaṁ ǁ kṛitvâ rûpa-ksha-
3 ya-pâsta $\begin{array}{c|c|c} 2 & 3 & 4 \\ 3 & 4 & 5 \end{array}$ jâtu saṁguṇya jâtaṁ $\frac{2}{5}$ ǀ êtâvad api rûpa-saṁśu-
4 ddhâ-jâtaṁ $\begin{array}{c} 3 \\ 5 \end{array}$ ǀ anêna bhaktvâ śulka-piṇḍaṁ guṇitaṁ jâtaṁ ǀ 40
5 êśa piṇḍaṁ pratyayaṁ $\begin{array}{cc} 2 & 40 \\ 5 & 1 \end{array}$ guṇita jâtaṁ 16 śêshaṁ ǀ 24 [ǀ ê-]
6 vaṁ 40 ǁ anyaṁ a sya pratyayaṁ $\begin{array}{c} 40 \\ 1 \end{array}$ ǀ phalaṁ 16 kshayaṁ 24
7 êvaṁ 40 ǀ ǁ udâ ǁ guḍa-piṇḍa $\begin{array}{c} 1 \\ 3 \end{array}$ – ǀ jñâta-tulyôś chatu
8 . vyê guḍaṁ ǀ tṛi-chatush-paṁcha-shaḍ-vṛiddhyâ chatvâ $\begin{array}{c} 1 \\ 4 \end{array}$ – $\begin{array}{c} 1 \\ 5 \end{array}$ – riṁśa vê kshaya

The page figured on the lower half of Plate III is the same as that figured on Plate I. That figured on the upper half is the reverse (not "obverse" as stated on the Plate) of a leaf which contains the concluding portion of sûtra 53 and the beginning of sûtra 54. It reads as follows :—[2]

TEXT.

1 . . . śikêna ǀ $\begin{array}{c|c|c} 1 & 13 & 30 \\ 1 & 6 & 1 \end{array}$ pha 65 prathamêna dvitîya-sya[10]
2 r-dattâ jâtâ ǀ 55 ǀ $\begin{array}{c|c|c} 1 & 3 & 30 \\ 1 & 2 & 1 \end{array}$ ǀ pha 45 55 ǁ samadhanâ jâtâ ǁ
3 Sûtraṁ tṛipaṁchâśamaḥ sûtraṁ 53 ǁ [vikra]-
4 yêna krayaṁ bhâjyaṁ rûpa-hînaṁ punar bhajêt —·•·— labhê[na]
5 guṇayê tatra nîvî bhavati tatra cha ǁ udâ ǁ dvibhish kṛiṇâti ya[s sa]-
6 pta vikṛiṇâti tṛibhish shaṭ ashṭâdaśa bhavêd lâbhâs ka nî[vî]
7 [ta]tra katthyatâṁ ǁ $\begin{array}{c|cc} 7 & 6 & 18 \\ 2 & 3 & 1 \end{array}$ lâbhâ ǀ karaṇaṁ ǀ vi[śêshaṁ] .
8 . . . .

The concluding portion of the fifty-third sûtra on the above page has been already transcribed and translated in my previous account of the MS., *ante*, pp. 41 and 44. I proceed to do the same with the remainder of the page, as well as with the portions of the twenty-fifth sûtra contained in Plates I and II. The substance of the portion on Plate I has been already briefly explained, in Note 6, p. 47 above, but for the sake of completeness I repeat it. The portions of the twenty-fifth sutra represented on Plates I, and II, belong to the latter part of it, and comprise four of its examples, *viz* from the tenth to the thirteenth.

[1] The transcripts are again made from the original, as the lithographs are not quite perfect. The statements on the plates which reverse the position of the two pages are incorrect.

[2] The two pieces at the upper right-hand corner have got displaced. The lower of the two pieces should be reversed, and joined on to the top of the upper of the two pieces, and then the joint-piece should be brought down to the main piece.

The total number of its examples is fifteen (see p. 34 above).

TEXT.

25th Sûtra.

Kritvâ rûpakshayaṁ pârthaṁ dhântasaṁguṇanaṁ tataḥ ı
Pravṛitti-r-guṇanaṁ *bhaktvâ* . . . . vinirdiśêt[3] ıı
Udâ ıı
. . . . ı
. . . . tê dhanaṁ ı
Yasya tanmayatâ chakshu . . . . vada ıı

. . . apahṛitaśulkapiṇḍaṁ 24 ıı karaṇaṁ ıı kṛitvâ rûpakshayaṁ pâsta | $\frac{2}{3}$ | $\frac{3}{4}$ | $\frac{4}{5}$ | jâtu saṁguṇya jâtaṁ | $\frac{2}{5}$ | êtâvad api rûpasaṁśuddhâ jâtaṁ | $\frac{3}{5}$ | anêna bhaktvâ śulkapiṇḍaṁ guṇitaṁ jâtaṁ 40 êśa piṇḍaṁ pratyayaṁ | $\frac{2}{5}$ $\frac{40}{1}$ | guṇita jataṁ 16 śêshaṁ ı 24 ı êvam 40 ıı anyaṁ asya pratyayaṁ $\frac{40}{1}$ $\frac{1}{3}$ + $\frac{1}{4}$ + $\frac{1}{5}$ + phalaṁ 16 kshayaṁ 24 êvaṁ 40 ıı

Udâ ıı
Guḍapiṇḍa jñâtatulyôś chaturi . . vyê guḍaṁ ı
Trichatushpaṁchashaḍvṛiddhyâ[4] chatvâriṁśa vê kshaya ıı

Udâ ıı
Ajñata-r-ambhalôhasya trichatushpaṁchakâ[5] kshayê ı
Saptaviṁsati piṇḍasya tridhântaśêshya dṛishyatê ıı
Kiṁ sarvaṁ vada tatvajña kshayaṁ cha mama katthyatâṁ ıı

| $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{5}$ | śê $\frac{27}{1}$ | karaṇaṁ ı kṛitvâ rûpakshayaṁ pârtha $\frac{2}{3}$ $\frac{3}{4}$ $\frac{4}{5}$ guṇitaṁ jâtaṁ $\frac{2}{5}$ rûpakshayâṁ | $\frac{3}{5}$ | anêna śêshaṁ bhaktaṁ śêshaṁ | 27 ı bha*ktaṁ* jâtaṁ 45 asya saptâviṁśa[5] pâtya śêshaṁ 18 ıı êta-kshayaṁ ıı

Uda ıı
*Par*ikshîṇasya lôhasya tridhântaṁ paṁchamâśakaṁ[6] ı
Na jñâyatê-t-pravṛittikâṁ *na cha śê*sha pradṛiśyatê ıı
Pravṛittiśêshaṁ yô piṇḍaṁ kêvalaṁ viṁśati sthitaṁ ı
Â*darśyatâṁ* pravṛittî syâ kiṁ vâ śêshaṁ vadasva mê ıı

| $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{5}$ || kṛitvâ *rûpakshayaṁ* . . . . .

54th Sûtra.

*Vikra*yêna krayaṁ bhâjyaṁ rûpahînaṁ punar bhajêt ı
Lâbhê*na* guṇayê tatra nîvî bhavati tatra cha ıı
Udâ ı
Dvibhish[7] kriṇâti ya*s sa*pta vikriṇâti tribhis *sa*[8] shat ı
Ashtâdaśa bhavêd lâbhâsh[7] kâ *nîvî tatra* katthyatâṁ ıı

$\frac{7}{2}$ $\frac{6}{3}$ | $\frac{18}{1}$ lâbhâ | karaṇaṁ ı vi*krayêṇa* . . . . .

[9]guṇita*ṁ* jâta*ṁ* ı 24 ı êśa nîvî jâtâ ı sya[10] pratya*yaṁ trairâśikêna* ıı yadi dvibhis sapta labhyatê ı tadâ chaturviṁśatibhish[7] kiṁ | $\frac{2}{1}$ $\frac{7}{1}$ | $\frac{24}{1}$ | phalaṁ bha[11] 84 ıı asya vikrayaṁ kriyatê ı yadi-sh-shaḍbhi traya . ṇâ[12] labhyatê tadâ chaturâśîtibhish[7] kiṁ | $\frac{6}{1}$ $\frac{3}{1}$ | $\frac{84}{1}$ phalaṁ 42 ı mûlaṁ 24 ı pâtyaśêshaṁ 18 êsha lâbhâḥ

Chaupaṁchâśamasûtraṁ 54 —•—

TRANSLATION.

25th Sûtra.

Having subtracted the series (of the given rates) and (the product of) the multiplication of the instalments from one, let (the arithmetician) determine the original amount by multiplication (with the remainder) after dividing (the latter).

[3] The preceding portion is not on the plate. It has been added from another leaf for the sake of completeness.

[4] The original has the *upadhmânîya* in °*chatushpaṁcha*°.

[5] The original spells it with the guttural nasal consonant.

[6] Read *pañchamâśakam*.

[7] The original has the *jihvâmûlîya*.

[8] Conjecturally restored; the original omits *sa* without which the line does not scan.

[9] The following portion is not on the plate. It has been added to complete the sûtra.

[10] Read *asya*.

[11] Apparently an abbreviation of *bhavati*.

[12] Perhaps read *puṇâ* (*punaḥ*), only one *akshara* is lost.

FACSIMILE OF A LEAF OF THE BAKHSHÂLÎ MANUSCRIPT.

Containing a portion of Sûtra 25. Plate II.

17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

Size 8¼″ by 7″.

Reverse restored.

Jaffé & Albert, Vienna.



FACSIMILES OF LEAVES OF THE BAKHSHALÎ MANUSCRIPT.

A. Portions of Sûtras 53—54. Plate III.

1
2
3
4
5
6
7
8

Obverse

B. A portion of Sûtra 25.

1
2
3
4
5
6
7
8

Size 8¼" by 7".

Obverse.

Eleventh Example.

(This example is too fragmentary to be translated. Its purport may be inferred from the solution to have been somewhat as follows: —Of a certain quantity of goods, a merchant has to pay, as duty, one-third, one-fourth and one-fifth on three successive occasions. The total amount of duty he thus pays is 24. What was the original quantity of his goods?)

(The statement is partially wanting, but the whole of it may be easily restored thus:— $\frac{1}{3} \cdot \frac{1}{4} \cdot \frac{1}{5}$ is the series of rates); the total duty taken is 24.

Solution:—"Having subtracted the series from one" we get $\frac{2}{3}, \frac{3}{4} \cdot \frac{4}{5}$: these multiplied altogether give $\frac{2}{5}$; that again, subtracted from one, gives $\frac{3}{5}$; with this, after having been divided, (*i.e.* inverted, $\frac{5}{3}$), the total duty (24) is multiplied, giving 40; that is the original quantity.

Proof: $\frac{2}{5}$ multiplied with 40 gives 16 as the (ultimate) remainder: (to this add the total duty) 24; hence (the original quantity is) 40.

Another proof of it: 40 multiplied with $1-\frac{1}{3}$ and $1-\frac{1}{4}$ and $1-\frac{1}{5}$ gives the result 16 (or in notation): $40 \times \left[(1-\frac{1}{3}) \times (1-\frac{1}{4}) \times (1-\frac{1}{5})\right] = 16$); the deduction is 24; hence (the total is) 40.

Twelfth Example.

[I cannot venture to translate the example, as it is only preserved in a fragmentary state, and all the rest that might have explained it—statement, solution and proof—is entirely lost. The following does not pretend to be more than a guess at its purport:—A merchant possesses a quantity of molasses of a certain weight; he makes, on four successive occasions, additions thereto of one-third, one-fourth, one-fifth and one-sixth; the difference (between these additions and the original quantity) is forty. What was the original quantity, and what is the final total amount?

Solution:—One added severally to $\frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}$ gives $\frac{4}{3}, \frac{5}{4}, \frac{6}{5}, \frac{7}{6}$; these instalments multiplied together give $\frac{7}{3}$; subtracting 1 from $\frac{7}{3}$ we get $\frac{4}{3}$; with $\frac{4}{3}$ divided (or inverted, *i.e.*, $\frac{3}{4}$) the difference 40 is multiplied, giving $\frac{40 \cdot 3}{4}$ or 30: hence the original quantity was 30, and the final amount is 70].

Thirteenth Example.

Of an unknown quantity of lapis lazuli, one-third, one-fourth and one-fifth go in loss: the (total) loss of the quantity, accruing in three instalments, is found to be twenty-seven. Say, O wise man, what is the total, and let me also be told the difference (between the total and the loss, *i.e.* the remainder)?

Statement: $\frac{1}{3}, \frac{1}{4}, \frac{1}{5}$ are the rates of loss: the (total) loss is 27.

Solution:—"Having subtracted the series from one," we get $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}$, which being multiplied give $\frac{2}{5}$; subtracting this from one, we get $\frac{3}{5}$, by this the loss is divided: the loss is 27; dividing this by it, we get 45; out of this the loss is twenty-seven; hence the difference (or remainder) is 18.

Fourteenth Example.

Of waste iron there are three instalments, of which one-fifth is the last rate.[13] The original amount is not known, nor is the wastage declared; but the remainder of the original amount is only twenty. Now let the original amount be shown, and tell me what shall be the wastage.

Statement: $\frac{1}{3}, \frac{1}{4}, \frac{1}{5}$ (is the series of rates of wastage).

(The solution and proof are wanting: but after the analogy of those of the preceding examples, the solution would run thus:—'Subtracting the series from one,' we get $\frac{2}{3}, \frac{3}{4}, \frac{4}{5}$: multiplying these, we get $\frac{2}{5}$; dividing with this the remainder 20, we get 50 as the original amount: hence the wastage is 30).

54th Sûtra.

With the sale the purchase should be divided: then divide it again (after being) diminished by one; then multiply it with the profit; (the result) is then the capital.

Example.

One who purchases seven for two, sells six

[13] This, as the context and statement shows, is undoubtedly the meaning of the word which in the MS. is written *pañchamāśakaṁ*, and which qualifies *truḍhintaṁ*. The former word seems to be a mis-spelling for *pañchamāṁśakaṁ* (i.e. *pañchama* and *aṁśakaṁ*) 'having one-fifth as a (final) part.' But it may be also suggested to be an error for *pañchamāntakaṁ*, 'having one-fifth as its final (rate).'

for three. Eighteen is his profit. Say now, what was his capital?

Statement: $\frac{7}{2}$ and $\frac{6}{3}$ (are the rates of purchase and sale); 18 is the profit.

Solution (may be thus restored):—"With the sale (the purchase should be divided):" the rate of purchase is $\frac{7}{2}$, that of sale is $\frac{6}{3}$, dividing with the latter, we get ($\frac{7}{2} \div \frac{6}{3}$ or) $\frac{7}{4}$; subtracting 1 from $\frac{7}{4}$, we get $\frac{3}{4}$; this, being divided (or inverted), becomes $\frac{4}{3}$;) with this, multiplying (the profit 18), we get 24; this is the capital.

Proof of this by the rule of three:—If seven are got for two, then how much (is got) for twenty-four, or in notation $2 : 7 = 24 : 84$. This (*i.e.* 84) is sold. If for six are again got three, then how much (is got) for eighty-four, or in notation $6 : 3 = 84 : 42$; (hence) the original amount was 24, and the remainder of the property is 18; that is the profit.

NOTES.

1. On the terms *pártha, dhánta, pracṛitti, bhaktvá*.—The term *pártha* occurs very frequently in the fifteen examples of the 25th sûtra. It is sometimes spelt *pásta* (as on Plate II), which spelling indeed occurs as often as *pártha*. Once I also found the spelling *pástha*. Neither of the three words is found in any Sanskrit dictionary accessible to me. But it seems clearly to appear from the context that the meaning of the word must be 'series,' *i.e.* the series of the rates or proportions. I take *pártha* to be a synonym of *párthakya* (which is given in the dictionaries), and a derivative of *pṛitha* in the sense of 'several' (like *pṛithak*). The form *pásta*, if it is not an error for *pártha*, I would take to stand for *apásta* (*apa-asta*), 'what is thrown away,' 'deduction.' It will be observed that the series of instalments often refers, in the examples, 'to deductions' made (by way of 'wastage' or 'duty') from the original amount. This may explain, why *pásta* might be occasionally substituted for *pártha*. The form *pástha*, I am disposed to think, is simply an error for *pártha*, or for *pásta* if the latter form be also admissible.—The term *dhánta* is derived from the suffix *dhá* and *anta*, and means literally 'that which ends in *dhá*,' (as *dvidhá, tridhá, &c.*).' It hence comes to be equivalent to our 'instalment.'—The term *pracṛitti* is explained in the solution of an example to the 26th sûtra to 'mean the original amount, the stock or capital.' In that example the 'original amount' is required to be found, and it is then shown to be 81, to which is added the remark *ésa pracṛittir ity arthaḥ*, 'this is the original amount, that is the meaning of it.' In this sense of the 'original amount,' the word *pracṛitti* does not appear to be noted in any Sanskrit dictionary. The meaning, however, is readily deducible from the root of the word.—The term *bhaktvá*, 'having divided,' (or *bhajét* or *bhága*) is technically applied to a fraction, when it is to be used as a divisor, and directs the 'inversion' of the fraction. For example, if 24 is to be divided by $\frac{3}{5}$, the direction given is,—'divide $\frac{3}{5}$ and multiply it with 24,' where we might say,—'invert $\frac{3}{5}$ and multiply with 24;' that is, $\frac{5}{3} \times 24 = 40$.

2. Examples of sûtra 25. In the 11th example the original quantity is 40; of this $\frac{1}{3}$, or $13\frac{1}{3}$, is paid as duty; the remainder is $26\frac{2}{3}$: of this $\frac{1}{4}$ or $6\frac{2}{3}$, is paid as duty; the remainder is 20; of this $\frac{1}{5}$ or 4, is paid as duty, the remainder is 16. The three instalments of duty, $13\frac{1}{3} + 6\frac{2}{3} + 4$, amount to 24. And $16 + 24$ is 40.—The 13th example is similar to the 11th. The arithmetical process had been given correctly in my previous note (p. 48 above): but, on reconsideration, I think, the exact meaning of the example is as now given. It is not the 'loss,' but the 'remainder,' that is required to be found. The method of the 25th sûtra is based on the following considerations;—The original quantity is assumed to be one; then the remainder, after the first instalment of duty is paid, is $1 - \frac{1}{3}$ or $\frac{2}{3}$ if the quantity on which the second instalment of duty is paid, be assumed to be one, the remainder after paying that instalment is $1 - \frac{1}{4}$ or $\frac{3}{4}$; but the quantity on which it is really paid is $\frac{2}{3}$; hence the proportionate remainder is $\frac{2}{3} \times \frac{3}{4}$ (*i.e.* $1 : \frac{3}{4} = \frac{2}{3} : \frac{2 \cdot 3}{3 \cdot 4}$); similarly if the quantity on which the third instalment is paid, be assumed to be 1, the remainder, after paying that instalment, is $1 - \frac{1}{5}$ or $\frac{4}{5}$; but the quantity on which it is really paid is the previous

remainder $\frac{2}{3} \times \frac{3}{4}$; hence the proportionate final remainder is now $\frac{2}{3} \times \frac{3}{4} \times \frac{4}{5}$ (*i.e.* $1 : \frac{4}{5} = \frac{2}{3} \times \frac{3}{4} : \frac{2}{3} \times \frac{3}{4} \times \frac{4}{5}$), or $\frac{2}{5}$; and if the original quantity be assumed to be 1, the loss must amount to $1-\frac{2}{5}$ or $\frac{3}{5}$. Now, if the amount of the loss is given, it follows that the proportionate original quantity is found by dividing the given loss with $\frac{3}{5}$, or (as the rule says) by 'dividing' (*i.e.* inverting) $\frac{3}{5}$ (*i.e.* $\frac{5}{3}$), and multiplying the given loss with it; for, $\frac{3}{5} : 1$ = given loss : original quantity. On the other hand, if the final remainder is given, the original quantity is found by dividing the given remainder with $\frac{2}{5}$, or by 'dividing' (*i.e.* inverting) $\frac{2}{5}$ (*i.e.* $\frac{5}{2}$) and multiplying the given remainder with it (for, $\frac{2}{5} : 1$ = given remainder : original quantity). The first case is illustrated by the 11th and 13th examples; the second case, by the 14th example. From these considerations the several steps directed in the rule will be readily understood: *viz.* (1) to subtract each rate of the series from one; (2) to multiply the several instalments thus obtained; (3) to subtract the product, thus obtained, from one; (4) to 'divide' (*i.e.* invert) (either the product, obtained by the second step, or the remainder, obtained by the third step) and multiply by it (either the given loss or the given remainder, as the case may be). It will be noticed that, in order to render the rule as wide as possible, the particular manner of applying the fourth step (*i.e.* the portions put in brackets) is not stated in the rule. This is left to be learned from the examples, which are given to illustrate the various applications of the rule.

WEBER'S SACRED LITERATURE OF THE JAINS.

TRANSLATED BY DR. HERBERT WEIR SMYTH.

(From the *Indische Studien*, Vol. XVI. pp. 211-479, and Vol. XVII. pp. 1-90.)[1]

According [211][2] to the conception of the modern Jains, **their collective sacred texts date back to the first Jina, Ṛishabha.**[3] The first trace of this view appears to be found in the concluding paragraph[4] of the *Nandî*, in which the *aṇuṇṇâ* (*anujñâ*) is referred to Usabhasêṇa,[5] the 12 *aṁgas* having in the passage just before been enumerated as *bhâvâṇuṇṇâ* and in an earlier passage, in which 8,400,000 *païnnas* are attributed to Vaddhamaṇasâmi, the scholium substitutes Rishabha-svâmin.[6]

The statements (in four 436 in Nemichandra's *Pravachanasâroddhâra* § 36, composed in Prakrit, on *titthavochchhêa* (in four verses inserted between 435 and 436), are, to a certain extent, in agreement with the above. These verses[7] are a detailed explanation of the statements in v. 434, which are rather general in character and obscure; and assert that during the eight *jiṇaṁtaras*: *Usahajiṇiṁdâu jâ Suvihî*, *i.e.* from Usaha 1 to Suvihi 9, there existed only eleven *aṁgas*, without the *diṭṭhivâa*, which stands in the twelfth place: *muttûṇa diṭṭhivâyaṁ havaṁti ikkârasê 'va aṁgâiṁ.* During [212] the following seven *jiṇaṁtaras*: *Suvihijiṇâ jâ Saṁti*, from Suvihi 9 to Saṁti 16, all twelve *aṁgas* were *vochchhinna*. But during the last eight *jiṇaṁtaras*: *Saṁtijiṇâ jâ Vîraṁ*, from Saṁti 16 to Vîra 24, they were not *vuchchhinna*.

The *diṭṭhivâa* was a second time lost: *vuchchhinnô diṭṭhivâô tahiṁ.* These statements are, it is true, obscure, yet become clear by means of verse 434,[8] which they are designed to explain. According to this verse, all three statements

---

[1] The Editors beg to acknowledge much valuable assistance kindly given by Professor Leumann, of Strassburg, in taking this paper through the Press; and the translator also his acknowledgments for assistance of the same scholar in respect of the translation from the German, also for some additional notes distinguished by asterisms with the initial L put after them.

[2] The figures in brackets indicate the pages of the original German article.

[3] Dharmasâgara in his *Kupakshakauśikâditya*, in the *Proceedings* of the Royal Academy of Sciences, Berlin, of 1882, p. 813, 23 (I cite this essay of mine under the abbreviation *Kup.*) and Jacobi in this Journal, *ante*, Vol. IX. p. 161 (1880).

[4] Doubtless of secondary origin.

[5] âdikarapurimatâê (kalê) pavattiâ Usabhasêṇassa.

[6] See *Ind. Stud.* 17. 15, note; *Catalogue of the Berlin Sanskrit and Prakrit MSS.* 2. p. 679.

[7] In the commentary of Siddhasênasûri, composed Saṁvat 1242 (A.D. 1186) these verses are not explained, but in the MS. which I have before me they are found in the text, pag. 212, in the middle of the page, and are counted in with the rest.

[8] It runs: pa[illegible] -ṁtarêsu [illegible] Dr. Leumann informs me that the source of these statements is found [illegible] 20. [illegible] 16: paḍhamassa [illegible] bârasaṁgaṁ [illegible]

are valid merely for the interval between the Jinas. Their significance is as follows:—At the time of Usabha all twelve *aṅgas* were extant; between Jinas 1-9 only the first eleven; between Jinas 9-16 all twelve were lost; and under or between Jinas 16-24 they were all extant. The twelfth *aṅgas* was however lost again after Jina 24.

Though these statements appear to establish the fact that the 12 *aṅgas* are said to have existed as early as the time of Usabha, nevertheless it becomes perfectly plain, from a consideration of their nature, that this claim rests upon an insufficient foundation. The commentator characterizes the degree of the *vuchchhêa* during the jinaṁtaras, which existed between Suvihi, to Saṁti, as follows:—*arhaddharmavârttâ 'pi tatra nashṭâ*;—a peculiar testimony, we may remark in passing, to the result of the activity of each of the seven saints 9-15.

In reference [213] to the *vuchchhêa* of the twelfth *aṅga* (*i.e.* the *diṭṭhivâa*) which happened again after Mahâvîra, we have additional information derived from tradition.

The fourteen so-called *pûrvâṇi*, cf. Hêm. 246-247, which, according to the statements handed down to us, formed a part of this *aṅga* and which Mahâvîra is said to have transmitted to all his pupils (though only one of these, Sudharman by name, transmitted them to a pupil of his own, Jambû, the last *Kêvalin*) are said to have existed for only six generations longer. In consequence of this the six patriarchs in question, namely:—Prabhava 3, Śayyaṁbhava 4, Yaśôbhadra 5, Sambhûtivijaya 6, Bhadrabâhu 7, and Sthûlabhadra 8, had the honorary title of *śrutakêvalin*, or *chauddasa-puvvi* (in the *Nandîs.*), *chaturdaśapûrvadhârin*, °*pûrvin*.[9]

The following seven patriarchs:—Mahâgiri, Suhastin to Vajra (Hêm. v. 35), knew only ten of the whole number, inasmuch as tradition asserts that with Sthûlabhadra the knowledge of the 4 last *pûrvas*[10] (11—14) ceased. In consequence of this they are called *dasapuvvi* (cf. *Nandîs.*), *daśapûrvin*; and from that point the knowledge of the *pûrva* decreased gradually. In *anuyôgadvârasûtra* there is still mention of the first gradation lower, *navapuvvi*, cf. *Bhag.*[11] 2, p. 318 so that finally in the time of Dêvarddhigaṇi, 980 years after Vîra, "*only one pûrva remained*," *cf.* Klatt, *ante*, Vol. XI., 247b 1882.[12] Also according to Śântichandra on *up.* 6 the *diṭṭhivâa* was entirely *vyavachchhinna* 1000 years after Vîra.

In the 9th book [214] of the *Pariśishṭaparvan* v.55ff., Hêmachandra gives us a detailed account of the first loss of the knowledge of the *pûrvas*, viz. of the reduction of their number from 14 to 10. Unfortunately in the MS. (Berlin MS. or fol. 773) which lies before me, and which is rather incorrect, a leaf is lacking with v. 69-98, *cf.* Jacobi, *Kalpasûtra*, p. 11. After Hêmachandra has informed us in the preceding verses about Châṇakya and Bindusâra, about Aśôka and śrî-Kuṇâla, and also about Samprati, he passes to the synod of Pâṭaliputra, held at the end of this "wicked" period. The principal duty of this council which was to collect the *śruta*, from all who were in possession of any portion; and it succeeded thus in collecting the 11 *aṅgas*.[13] As regards the *dṛishṭivâda*, Bhadrabâhu was the only person to whom recourse could be had. He, however, was on his way (?) to Nêpâl (*Nêpâladêśamârgastha*) and refused the summons of the Saṁgha (which had sent two Munis to fetch him), saying that he has begun a *dhyânam* of 12 years, and that he could not interrupt it. The Śrîsaṁgha, however, threatening him, by means of two other Munis, with the punishment of exclusion (*saṁghavâhya*), he begged that capable scholars should be sent to him, to whom, at appointed times, he would give 7 *vâchanâs*. The Saṁgha thereupon sent Sthûlabhadra, (v. 69) who, [215] however, after he had learned the first 10 *pûrvas*, so enraged Bhadrabâhu, that the latter as a punishment gave him the remaining four for his own personal knowledge only, and forbade him to teach them to others

---

[9] Cf. Hêm. 33-34: *Comm. p.* 293 *in* Böhtlingk-Rieu

[10] *trayôdaśapûrvin dvâdaśa*°, *êkâdaśa* never existed according to tradition. Cf. commencement of the *avachûri* to the *Oghaniryukti*.

[11] '*Über ein Fragment der Bhagavatî*,' two papers of the author in the Transactions of the Royal Academy of Sciences of Berlin, 1866 (1) & (2).

[12] I cite this article as Klatt's.

[13] itaś cha tasmin dushkâle karâlê kâlarâtrivat |
nirvâhârtham sâdhu-saṅghas tîram nîranidhêr yathâ 55
agunyamânaṁ tu tadâ sâdhûnâṁ vismṛitaṁ śrutam |
anabhyasanatô naśyaty adhîtam dhîmatâm api 56
saṅghô 'tha Pâṭaliputre dushkâlânte 'khilô 'milat
yad aṅgâdhyayanôddêśâdy âsîd yasya tad âdadê 57
tataś chaikâdaśâṅgâni śrî-saṅghô 'mîlayat tadâ |
dṛishṭivâdanimittaṁ cha tasthau kiṁchid vichintayan || 58 ||

(*anyasya śêshapûrvâṇi pradêyâni tvayâ na hi*, v. 109).

In opposition to this information is the fact, that not only in *aṅga* 4 and in the *Nandisûtra*, do we find a detailed table of contents of the *whole diṭṭhivâa*, including the 14 *pûrvas*, but also that partly in the just-mentioned places, partly in several other texts (*Mahânisîtha*, *Anuyôgadv.*, *Âvaśy. nijj.*) the *duvâlasaṁgaṁ gaṇipiḍagaṁ* is repeatedly mentioned; consequently the Diṭṭhivâa appears to have still existed at the date of those texts, and moreover to have been still intact, since there is no mention of any imperfection. The Bhadrabâhu, to whom the above-mentioned legend has reference, died, so says tradition, 170 after Vîra, whereas in two of the texts, which mention the *duvâlasaṁgaṁ gaṇipiḍagaṁ*, there are contained dates which refer to a period later by 400 years. The whole legend appears to me, after all, to be nothing more than an imitation of the Buddhist legend of the council of Aśôka etc., and thus to have little claim to credence.

Be this as it may, the legend manifests a direct opposition between the 11 *aṅgas* and the *pûrvas*. And in fact from the scholium on *aṅga* 4 we must conceive their inter-relation to be as follows: the *Tîrthakara*, *i.e.* Mahâvîra —here is no thought of Ṛishabha,—**first** recited to his *Gaṇadharas* the contents of the *pûrvagatasûtras* (whence the name *pûrvâṇi*); whereupon the *Gaṇadharas* on their part brought[14] the contents of the *pûrvagatasûtra* into the form of the *aṅgas*, *âchâra*, etc. According [216] to another view the *Gaṇadharas* first brought the *pûrvagataśrutam* after its recital by the Arhat, into a textual form, and afterwards directed their attention to the *aṅgas*: *âchâra* etc.[15] Later on we shall return to the explanation of the name *pûrva* and the difference between *aṅgas* 1-11 and *aṅga* 12.

In full agreement as we find here that the actual contents have been ascribed to the Arhat, i.e. Tîrthakara (cf. *Âc.* 2, 13), but the external form to the Gaṇadharas, so likewise in the *Anuyôgadvârasûtra* we find that the *âgama* is divided into *attâ°*, *aṇaṁtarâ°* and *paraṁparâ°*, *i.e.* (1) original doctrine, (2) doctrine that has been received immediately from its author and (3) traditional doctrine. The first category belongs to the Titthagaras (plur.) alone unconditionally; to their pupils, the Gaṇadharas, it belongs only as far as the *suttam* (text) is concerned, while the Gaṇadharas, as regards the *attha* (contents), possess the *aṇaṁtarâ°* alone. The pupils of the Gaṇadharas possess, as regards the *suttam*, the *aṇaṁtarâ°*, as regards the *attha*, they have only the *paraṁparâ°*. And after them only the latter (*paraṁparâ°*) exists: there is no longer *attâ°* or *aṇaṁtarâ°*. According to the commencement of the *avachûri* of the *Oghaniryukti*, [217] the activity of the *daśapûrvin* was already limited to the composition of *saṁgrahaṇis*[16] to the *upâṅgas* etc.

We must however not omit to remark that **for some texts of the Âgama distinct authors are named,** part of whom, at least, are even considerably later than the *daśapûrvin*. *Upâṅga* 4 mentions as its author Ajja-Sâma, characterizing him as "the 23rd" (*i.e.* "saint" after Vîra[17]) and as one who possesses wisdom ripened through listening to the *pûrvas*, as being therefore in unison with the *diṭṭhivâa*. The name of Jiṇabhadda (Âvaśy. 14) belongs perhaps to a much later date. We have, however, no information of an exact nature in reference either to him or to Vîrabhadra, who was probably author of *païnna* 1. Sijjambhava, presumably author of the third *mûlasûtra* and Bhadrabâhu, to whom *chhêdasûtra* 3-5 and other texts are ascribed, belong to the *chaturdaśapûrvin*, but not to the immediate pupils of the Gaṇadharas, and consequently can lay claim to the *paraṁparâgama* alone. Nevertheless their works, as those just mentioned, are included in the existing *âgama*. We must therefore accept the conclusion, that

[14] atha kim tan (tat 'i pûrvagataṁ s uchyatê, yasmat tîrthakaras tîrthapravartanâkâlê gaṇadharâṇâm sarvasûtrâdhâratvêna pûrvagata sutrâdhâratvena purvaga(ta) sûtrârtha(m: the second sutrâdhâ gata is perhaps a repetition of the scribe) bhâshate tasmat pûrvâṇi 'ti bhaṇitâni, gaṇadharâh punah srutarachanâm vidadhânâ âchârâdi kramêna rachayanti sthapayanti cha. Cf. also Wilson, Sel. W. 1, 285 ed. Rost (from *Mahâvîracharitra*. 31): sûtritâni gaṇadharair argebhyah pûrvam eva yat | pûrvâṇî 'ty abhidhiyante tênai 'tâni chaturdaśa

[15] matâṁtarêṇa tu pûrvagata-sûtrârtha(m) pûrvam arhatâ bhâshito, gaṇadharair api pûrvagata-śrutam êva pûrvarachitaṁ paschâd âchâra (here perhaps a lacuna) m, yuktyâm abhihitah savvesi ayare padhamo ity-âdi, tat katham? uchyatê, tatra sthapanâm âśritya tatho 'ktam, iha tv aksharrachanâm pratîtya bhaṇitam, pûrvâṇi kritâni 'ti.

[16] daśapûrvadharâ apy upakâraka, upâṅgadiç dinâm C) saṁgrahaṇy uparachanêna (?) nena hetunâ C).

[17] "He (Kâlikâchârya) is the 23rd personage from Vîra, including the 11 *Gaṇadharas*. In the *Siddhânta* he is called Syâmârya."—Bhau Dâjî in *Jour. Bombay Br. R. As. S.* 9, 150 (1867).

we have to deal in it with constituent parts which differ widely from each other.

The text-constitution of the *âgama* appears, after all, on nearer view, to be of a very multifarious character. And this is vouchsafed also by tradition itself. The council of Pâṭaliputra, which the account of Hêmachandra [218] places in the immediate neighbourhood of the date of Aśôka, had, as we have seen above, been able to collect the 11 *aṅgas* only in a rather indifferent fashion, by acquiring one portion from one quarter, another from another (*yad aṅgâdhyayanôddêśâdy âsîd yasya*); and of the twelfth *aṅga* had been able to acquire only a part from Bhadrabâhu. The existence of what had thus been collected, was, as time went on, endangered from the fact that its transmission was only oral;[18] for which, according to tradition, writing was not substituted till eight centuries later, in the year 980 Vîra. This was effected by a council in Valabhî under the presidency of Dêvarddhigaṇi *Kshamâśramaṇa*; though others state that this ensued 13 years after (993 Vîra) at the hands of a council in Mathurâ under śrî Skandilâchârya. In connection with this the statement may be placed that in the year 980 the Valabhî king Dhruvasêna commanded that the *Kalpasûtram* should be recited publicly. Herein a special participation of the king in the work is indicated, be it in that of Dêvarddhigaṇi or in that of Skaṁdila, to whom by this act he gave decisive support.

If, then, as a matter of fact in the interval of 800 or 1000 (980) years after Vîra, the doctrines whose contents were promulgated by Vîra (though the form of the doctrines is ascribed to his pupils and not to the master himself) were handed down by oral tradition alone—and in unison with this assumption is the fact that just in the older portions of the text we find the introductory formula [219] *suyaṁ mé âusaṁ, têṇaṁ bhagavayâ êvam akkhâyaṁ* as well as for the single sections the concluding formula *ti bémi*—then we may well be astonished that the existing *Siddhânta* contains so many traces of antiquity as is the case. What knowledge would we possess of Christ if the New Testament had existed in an unwritten form till 980 A.D.,[19] and if we were limited to a codification of traditions under Pope Sylvester II., which was based not on written, but on oral transmission!

Truly, in this interval the cultivation of the sacred text had not been entirely abandoned. So, for example, to the 19th patriarch, Vajra, is ascribed particular solicitude in its behalf[20] cf. *Kup.* 811 (21). According to the statement of the *Digambaras*, cf. Jacobi, *Kalpas.* p. 30, the written codification of their sacred texts had been effected by Pushpadanta A.V 633—683,[21] 300 years before the date above mentioned. The sacred texts alluded to are not the same as those of the usual *Siddhânta*, which belongs to the *Śvêtâmbaras*, cf. Wilson, Sel. W. 1, 279 & 281 ed. Rost.

In the *âgama* which we possess, writing plays a very important rôle; so that [220] it becomes clear that writing had, at the time of the written codification of the *Siddhânta*, long been extensively used for literary purposes. Indeed the very lateness of the above-mentioned date necessitates already this conclusion, A. V. 980, corresponding to the middle of the fifth, or the beginning of the sixth, century A.D.[22] A distinct proof for this extensive use of writing is the expression *bambhî livî* frequently used in *aṅgas* 4, 5, *upâṅga* 4 etc., to denote the "sacred writing." Furthermore, the characterization of its most important part, the *aṅgas*, as *duvâlasaṁgaṁ gaṇipiḍagaṁ* makes for the same conclusion.[23] Lêham (writing) always stands at the head in the enumeration of the 72 kalâs, which we meet with in *aṅga* 4 and frequently elsewhere. The material of which the MSS. are made: *pattaya, potthayalihiyam*, is spoken of distinctly in the *Aṇuyôgadvârasûtra*. In *aṅga* 4 and *up.* 4, eighteen different kinds of writing are mentioned, *bambhî* and *javaṇâliyâ* (*yavanânî*)

---

[18] pûrvaṁ sarvasiddhântânâṁ pâṭhanam eva mukha-[illegible] [illegible] cit. Jacobi, *Kalpas.* p. 117, from the *Kalpa*-[illegible] of Lakshmîvallabha.

[19] Or 950, as we reckon from the birth of Christ, the [illegible] from the death of Vîra.

[20] Cf. also the accounts which exist in reference to [illegible] 1, 1, 9.

[21] Jacobi's statement "the whole of the *aṅgas* was lost after Pushpadanta; he reduced the sacred law to writing" is so self-contradictory as to baffle explanation on my part. Also the double statement in reference to the year of Vikramâditya's birth, *ibid.* 470 A V and 683 A V remains a riddle. The Pushpadanta mentioned *aṅga* 4 75, 86 is the 9th Jina.

[22] A.V. 980 corresponds either to the year 543, if we establish as the date of Vikramâditya 470 Vîra,—or, if we accept Jacobi's assumption (*Kalpas.* p. 15), to the year 511 A D.

[23] *cf. Bhag.* 1, 282n.

being placed first. Herein we may observe a close connection with the similar enumeration in *Lalitavistara*. Moreover all 18 are mentioned as used for the *bambhi* *lev*. The 46 *mâuyakkharâṇa* in *aṅga* 4 ought to be mentioned here in this connection.

Jacobi (*Kalpas*. p. 16*a*) has called our attention to the **peculiar synchronism** of the activity of Devarddhigaṇi (or of Skandila), with the contemporaneous activity of Buddhaghôsa as regards the drawing up in writing of the *Pâli* canon. Since this latter is, furthermore, several decennia older (almost a century older than Jacobi's "adjusted date" of A.V. 980), we must conclude that in any case he must have been followed in the wake [221] by his Jaina colleagues and not *vice versâ*. A great difference is manifest, it must be confessed, between both parties. While *Buddhaghôsa* did not change the linguistic make-up of the Pâli texts, the redactor of the Jaina texts adapted to the requirements of his own age the *Mâgadhî* language, in which, it is probable to suppose, they were originally composed (cf. in *aṅga* 5, 2, 1, the salutation *Mâgahâ!* see *Bhag* 2,250) and in which they had been in all likelihood allowed to remain by the council of *Pâṭaliputra*. The character of the language of the redactor of the Jaina texts is incomparably younger than Pâli,[24] and consequently its official name *addha-Mâgahâ bhâsâ* (in up. 1, 4, and elsewhere)[25] or *ardha-Mâgadhî* (with the Jain grammarians) bears traces of this late date. In fact, of the *Mâgadhî* only a few remnants, especially the Nom. Sing Masc. of the 1 Decl. in *ê*, have been retained, while even these disappear gradually in the course of time. In general the language may be characterized as a very much younger sister of *Pâli*. The reason for this fact must probably be sought in local influence, whether it be Valabhî or Mathurâ, where the written codification was made; at least such is a safe assumption. To the dialect of either Valabhî or Mathurâ these ancient texts, composed originally in *Mâgadhî*, had to accommodate themselves.

The Council of Pâṭaliputra, it is supposed, [222] limited its functions to the collection of the *aṅgas*; the written codification of Dêvarddhigaṇi, it is claimed, embraced the entire *siddhânta*, *âgama*,[26] the *savvâu gantkia* of this Âgama. See *Jacobi, l. c.* p. 115–117. What position have we here to assume? In *aṅga* 3.41 we find *aṅgabâhiriya* texts expressly recognized as different from the *aṅgas*, and as [illegible] of this kind the names of *upâṅgas* 5–7 are mentioned, together with a fourth name, which is that of a section in *upâṅga* 3. In *aṅga* 3.10 ten *dasâ* texts, each comprising 10 *ajjhayaṇas*, are enumerated, of which we possess only four, as *aṅgas* 7-10, and a fifth, as *chêdasûtra* 4. In *aṅga* 4 there are mentioned, besides the 11 (or 12) *aṅgas*, the names of the 36 sections of the first *mûlasûtra*, and three other texts, which are no longer extant; the last occur only in a statement in reference to the number of their *ajjhayaṇas*. A real enumeration of those texts, which besides the *aṅgas* belong to the *suam* (*śrutam*) is not found in the *aṅgas*, but in the *Nandîsûtra*, a work that is probably a production of Dêvarddhigaṇi himself. See below. In this work the sacred texts are divided into two groups: (1) the *aṅgapaviṭṭha*, i.e. the 12 *aṅgas*, and (2) the *anaṅgapaviṭṭha* texts. A further subdivision shows that under *anaṅgap.* there are 60 single texts enumerated, 27 of which prove to be names of existing parts of the *Siddhânta*: the other names appear either to be merely titles of sections of single texts of this number [223], or, and this is the majority of cases, are not found in the *Siddhânta*, though *aṅga* 3.10 is acquainted with some few of them. A repetition of this enumeration in the *Pâkshikasûtra*[27] adds at the end to the latter category four[28] additional texts, the former existence of which can be proved from another source. Inasmuch as this proof is as entirely free from suspicion as it is surprising I deem it fit to

[24] *cf.* *Bhagav* 1, 392–7. Vorlesungen über indische Lit Gesch. 2, p. 316.

[25] *s[illegible] kim tam bhâsâriyâ? [illegible] addha-Mâgahâe bhâsâe bhâsanti, atthaya [illegible] bambhî [illegible] pavattai.* —Also according to *upâṅga* 1, 56 (see Leumann, *Aupapât*. p. 61) Mahâvîra himself already preached in Ardha-Mâgadhî. —Accordingly we read in the quotation given by Hemachandra IV. 287: *[illegible] saṭṭam*; cf. Pischel's note on this passage in his translation, p. 160. The ordinary [illegible] with Hemachandra is *[illegible]*

[26] Other synonyms are sruta, sûtra, grantha, śâsana, âjñâ, vachana, [illegible] upadeśa, prajñâpanâ. Such is the enumeration in the *[illegible]* (but in Prâkrit.)

[27] Where the texts in question are called *aṅgabâhira*.

[28] Or "five": they seem to have been mentioned [illegible] by the original MS commented on by the *bhâshya* of the [illegible] see the explanation of the five names [illegible] p. 418 (after *Vaṇhidasâ*). —L.

discuss this matter already here in some detail

In the *Vihimaggapavâ*, called briefly *Vidhiprapâ*, that is to say, in a *sâmâyârî* of *Jinaprabhamuni* (Jinaprabha in Kôsala; likewise author of the *saṁdehavishaushadhi*) composed *Samvat* 1363 (A.D 1307) in *Prâkṛit*, the above mentioned enumeration of the *anaṅgapaviṭṭha* texts is found, with the addition of the same four names as in the *Pâkshikasûtra*. To these four there are added two more names. On this occasion we now find there, inserted between *aṅgas* and *upâṅgas*, the following remarkable statements in reference to that state of advancement in which the student is to study the single texts. The statement occurs in a passage where the author describes in detail the diurnal occupation necessary to learn the single texts of the *Siddhânta*. The passage is as follows:—

ittha chadakkha[29] pariyâyeṇa tivasô âyarapakappaṁ vahijja vâijjâ ya, êvam chaüvâsô sûyagaḍam, paṁchavaso dasakappavvavahârê, atthavasô ṭhâṇasamavâe, dasavâsô bhagavaî(°vaiṁ), êkkârasavasô khuḍḍiyâvimâṇâî (°nâdîni) paṁcha [illegible]ayaṇê, vârasavasô aruṇôvavâyâî(°âdîni) [224] paṁcha [a]jjhayaṇê, têrasavâsô uṭṭhâṇasuya[illegible] chaurajjhayaṇê, chaüddasâî-aṭṭhârasantavasô kamêṇa âsîvisabhâvaṇâ-diṭṭhivisabhâvaṇ[illegible]-[illegible]âra-ṇabhavaṇa-mahâsumiṇabhavaṇâ-[illegible]vanisaggê, êgûṇavîsavâsô diṭṭhivâyaṁ, sampuṇṇavîsavasô savvasuttajôgô tti. The same statements recur in an older form (cf. the name [illegible]âṇa for *aṅga* 5 and not *bhagavaî*) in Santichandra's Comm. on *upâṅga* 6 in 7 verses, the first two of which are found in Abhayadêva on *aṅga* 3:—

[illegible]vâsapariyâgassa [illegible] ayârapakappanâmam ajjhayaṇam |
[illegible]uvarisassa ya sammaṁ sûagaḍaṁ nâma amgaṁ ti || 1 ||
[illegible] kappavvavahârasaṁvachchharapaṇagadikkhiyassê[illegible]va |
[illegible]âṇaṁ samavâochiya amg' etê[30] aṭṭhavâsassa || 2 ||
[illegible]savâsassa vivahô, egârasavâsagassa ya imê [illegible] |
[illegible] [illegible]yavimâṇa-m-âî ajjhayaṇâ paṁcha nâyavva || 3 ||
bârasavâsassa tahâ aruṇovâyâi paṁcha ajjhayaṇâ |
têrasavâsassa tahâ uṭṭhâṇasuyâiyâ chaürô || 4 ||
chaüdasavâsassa taha âsîvisabhâvaṇam jiṇâ bimti |
pannarasavâsagassa ya diṭṭhâvisabhâvaṇaṁ taha ya || 5 ||
sôlasavâsâisu ya êguttaravuḍḍhiêsu jahasaṁkhaṁ |
châraṇabhâvaṇa-mahasuviṇabhâvaṇâ-tèagaṇisagga[31] || 6 ||
êgûṇavâsagassa diṭṭhivâô duvâlasaṁgaṁ |
sampuṇṇavîsavarisô aṇuvaî savvasuttassa tti || 7 ||

This enumeration is exceedingly noteworthy, from the fact, that of the texts which now belong to the *Siddhânta*, only nine are mentioned (six *aṅgas* and three *chhêdasûtras*), whereas the other eight names, to which reference will be made later on when we examine the *Nandî*, are at present not found therein. The question [225] arises: are we justified in placing the composition of these verses[32] at a period in which the remaining portions of the present *Siddhânta* were as yet not embraced therein, their place being occupied by the eight lost texts, which are mentioned in the enumeration? In any case the enumeration cannot be otherwise than ancient, since at the date when it was composed, the *diṭṭhivâa* manifestly still existed, and in fact as the highest in the order of gradation.

If we now return to a consideration of the 60 *anaṅgapaviṭṭha* texts of the *Nandî* we shall find that we have to deal with a rich literature of which nearly half has probably been lost. On the other hand, among these 60 texts we miss not only at least six names which are now enumerated as portions of the *Siddhânta*; but all the titles of those groups are lacking, in which the *Siddhânta* is at present divided. These 60 names are enumerated without any reference whatever to any definite order in groups, and in a succession entirely different from the present order. Does this state of things permit us to conclude that neither the texts which are not mentioned in the enumera-

[29] [illegible] MS has *dakkhai*. But [illegible] is of course [illegible] [illegible] [illegible] is *dakkha* (*daksha*) the correct [illegible]

[30] [illegible] [illegible] [illegible] [illegible] ajjhayana in [illegible]

[31] [illegible] according to another passage of the [illegible] another name of the [illegible] book in the *Bhagavatî*, the latter in its turn being dasavâsassa[illegible]

[32] Śantichandra maintains a different view, viz. that since in v. 3 [illegible] 5 is ascribed to [illegible] [illegible] therefore [illegible] 6, and the connected *upâṅga* 6 took their places accordingly. But how is the case with [illegible] 7 etc.?

tion nor the present groupings or titles of groups existed at the date of the *Nandî*?

At present the entire *Siddhânta* embraces the following 45 texts[33] divided into the following six groups: 1. eleven (or twelve) *aṅgas*: [226] Âchara, Sûtrakṛitam (°krit), Sthânam, Samavâya, Bhagavatî, Jnâtâdharmakathâs, Upâsakadaśâs, Antakriddaśas, Anuttaraupapâtikadaśâs, Praśnavyâkaraṇam, Vipâka, (Drishtivada, no longer extant),—2. twelve *upâṅgas*: Aupapâitkam, Râjapraśnîyam, Jivâbhigama, Prajnapanâ, Jambudvîpaprajnapti, Chandraprajnapti, Sûryaprajnapti, Nirayavali [or Kalpikâ], Kalpâvataṅsikâ, Pushpikâ, Pushpachulikâ, Vrishṇidaśas,—3. ten *paṇṇas*: Chatuḥsaraṇa, Saṁstâra, Âturapratyâkhyânam, Bhaktaparijna, Taṇḍulavaiyali,[33] Chandâvija,[34] Dêvêndrastava, Gaṇivîja,[35] Mahâpratyâkhyanam, Vîrastava,—4. six *chhêdasûtras*: Niśitham, Mahâniśitham, Vyavahâra, Daśâśrutaskandha, Brihatkalpa, Pañchakalpa,—5. two *sûtras* without a common name, Nandî and Anuyôgadvâram, —6. four *mûlasûtras*: Uttarâdhyayanam, Âvaśyakam, Daśavaikâlikam and Piṇḍaniryukti. This division is that of Buhler, (see Jacobi, *Kalpas.* p. 14), with an exception in the succession of *up.* 5—7, where I have deviated from his arrangement on the strength of the *Vidhiprapâ* and the scholium on *up.* 6. The same division is found also in *Ratnasâgara* (*Calc.* 1880) except that there groups 3 and 4 have changed places with 5 and 6, not to mention some minor differences. It is a very remarkable fact that in Rajendra Lâla Mitra's *Notices of Sanskrit MSS.* 3, p. 67 (*Calc.* 1874)—on the authority of a definite source of information, the *Siddhânta dharmasâra*,—we find an enumeration[35] varying materially from the above. First a very different grouping may be noticed; [227] secondly, there are a few additional names (50 instead of 45) and finally remarkable variations in the names themselves. The first two groups of *aṅgas* and *upâṅgas* are identical, although *aṅga* 10 has changed place with *aṅga* 11, and the name of *upâṅga* 12 having fallen out, in its stead another name (*Kappiyâsûtra*) has been introduced in the ninth place.[36] The four *Mulasûtras* appear as Group 3, and of these two have different names (2. *Viśêshâvasyaka.* 4. *Pâkshika*). Group 4 bears the title *Kalpasûtras* and consists of five texts, viz.: *mûlas.* 1. *chhêdas.* 1 and 3, *Kalpasûtra* (part of *chhêdas.* 4) and *Jîtakalpasûtra.* Group 5 embraces 6 *chhêdasûtras*, of which the first three alone are perhaps identical with *chhêdas.* 1: the fourth corresponds to *mûlasûtra* 4 of Buhler. The names are: 1. Mahâniśîthavṛihadvâchanâ, 2 Mahâniśîthalaghuvachanâ, 3. Mahâniśîtha (not in Rajêndra Lala Mitra, but in Kashinath Kunte) Madhyamavâchanâ, 4. Piṇḍaniryukti, 5. Aughaniryukti, 6. Paryushaṇâkalpa. Group 6: the ten *paṇṇa* or *payaṇṇa* texts, but in a different order. The *Maraṇasamâdhisûtram*, which is in the eighth place, takes place of *paṇṇa* 10. *Nandîsûtra* and *Anuyôgadvârasûtra*, counting separately as groups 7 and 8 respectively, conclude the list. If, now, [228] after a consideration of the above, it is manifest that even the parts of the *Siddhânta* are at present uncertain, we have herein a sure proof of the unsettledness and uncertainty which attaches to the entire writings of the Jains. As a matter of fact it is apparent that the oldest portions of their literature are in reality nothing but *disjecta membra*, that they are very unequal and, as regards the date of their composition, separated from each other by extensive periods.

In the *aṅgas* and *upâṅgas* we may observe groups, which are well defined, individual, and united through criteria which prove their interconnection. These groups were in a later age brought into connection with the other groups of like nature.

On the other hand, it cannot be denied that a hand, aiming at unification and order, has been brought to bear especially upon the *aṅgas* and

[33] These are probably the "45 *âgamas*" which the [illegible] of the writer of a MS. (Samvat 1666, A.D. 1609) of the *Upadeśaratnasûtra* (Berlin MS. or. fol. 1038) had [illegible]: see v. 10 of the statements at its end.

[34] These names both as regards form and signification are either of doubtful explanation or are involved in obscurity.

[35] Repeated in the "*Report on the Sanskrit MSS. [illegible] during* 1880-81" addressed to the Government of [illegible], by Pandit Kashinath Kunte. He has given the report twice with tolerable similarity.—Jan. 24, 1881 (p. 4-7) and June 6, 1881 (p. 6—9).

[36] Here Kashinath Kunte deviates from Rajendra Lala Mitra, adducing the common name of *up.* 12, but in the ninth place. A further variation is that in the place of the *Chandâvijaya* he adduces the *Mahâpaṇṇa* [illegible], which is found in the list of the *anaṅgapaviṭṭha* texts in the *Nandî*. The *Mahâpaṇṇa* [illegible] is characterised as "obsolete and extinct" by Kashinath Kunte.

upâṅgas. This is clear from the many remarks in reference to the redaction (*Bhagav*. 1, 389), which consist partly of the parallel references of one text to another, partly of *kârikâs* which are placed at the beginning to serve as a general introduction or inserted in the middle or subjoined at the end. The linguistic character of those redactionary remarks can be readily distinguished from that of the text. Among those parallel references, there are doubtless many, which are to be ascribed, not to the redactor but (cf. below) to the copyists: and among the *kârikâs* may be contained many additions of a decided secondary stamp. If now we do not discuss at length the problem as to whether we are to consider all the 45 *âgamas* of Bühler's list as collected by Dêvarddhigaṇi, [229] as is the belief of Jacobi, *Kalpas*. p. 16, we must accept *this* as a fact: that their present state cannot be that to which they were possibly brought by him. Despite the firm foundation erected by his activity, and despite the care which the Jains especially have, even from the earliest times, devoted to the restoration of their MSS., nevertheless both the constitution and condition of the *Siddhânta* text have been subject to most important modifications. Jacobi, p. 16, 17, has called attention to the numerous pâthas (various readings) recognized in the Scholia, and has expressed it as his conviction that it is impossible to restore Dêvarddhigaṇi's recension or text. There exist however other differences between the original and the present *Siddhânta* text. Not only have there been lost passages or sections of the text, which were extant at the date of the older commentaries, but also there have been inserted large interpolations which are apparent: and furthermore the text, according to all probability, has even suffered complete transformations. I conjecture that the reason of these changes may be sought in the influence of the orthodoxy of the *Svêtâmbara* sect,[27] which became more and more unbending to the various divisions of sectaries. The existing *Siddhânta* belongs exclusively to the *Svêtâmbaras*. The loss of the entire *drishtivâda* (cf. below), is doubtless principally due to the fact that it had direct reference to the doctrines of the schismatics. This point of view may afford us an explanation for the omissions, additions and transformations in the constitution of the other *aṅgas*. The [230] rigour of the polemic against the *annautthiya*, *annatîrthika*, *parapâsaṇḍa* and against the *ninhaya*, *nihnava*, is so sharp and cutting, that we are justified in drawing ulterior conclusions, which are of significance for the history of Jain literature.

Thus we have seen above, page 222f, that of works mentioned in *aṅgas* 3 and 4 with special reference to their contents and extent, eight are no longer extant, as is also the case with some 30 of the 60 *anaṅgapavittha* texts mentioned in the *Nandîsûtra*, etc. Again, it is a definite and certain conclusion that the *mahâpainnâ* chapter of the first part of *aṅga* 1 long formed an integral part of that *aṅga* before it was lost, as is at present the case. The *nisîhajjhayaṇaṃ*, which originally belongs to the second part of that *aṅga*, has been removed thence and given an independent position, that is to say, it exists, according to all probability, as *chhêdasûtra* 1. Some verses, which originally had their place at the end of the first chapters of *upâṅgas* 5 and and 7, and which the scholium ascribes to that place, are now not extant. On the other hand, there is no lack of insertions:—At the date of the fourth *aṅga* (§84) the fifth had not yet attained the half of its present extent (84,000 instead of 184,000 *padas*). The addition of certain portions called *chûlâs* (protuberances), is expressly recognized by tradition as having taken place partly in *aṅga* 5 (*vivâhachûlâ*) partly in *aṅgas* 1 and 12 as also in *mûlasûtra* 3. In the case of *chhêdasûtra* 4 we have a certain instance of a growth out of manifold constituent parts. Besides these changes, be they omissions or additions, there are traces of evident textual transformations. The statements in *aṅga* 3,10 in reference to the contents of *aṅgas* 8—10, are drawn from a text quite different from our own. Furthermore [231] the statements in reference to the extent and division of all the 12 *aṅgas*, to be found in a detailed discussion of the subject partly in *aṅga* 4, partly in the *Nandî*, are oftentimes in unison neither with each other nor with the actual constitution of the text. Even the modern representation of the *Vidhiprapâ*, dating from

[27] A patent example of this inflexibility is to be found in the *Kupakshakauśikâditya*.

the commencement of the fourteenth century, shows extensive variations in the case of *aṅga* 6. It is furthermore to be noticed that chapter 16 of the first part of *aṅga* 2, has a title which does not comport with the character of its contents. The same may be affirmed of *aṅga* 10, the commentary to which refers to a textual division no longer in existence; nor does this *aṅga* contain the same dialect as the others. Finally, the name of the second *upâṅga* does not harmonize with its traditional explanation, which, in turn, stands in no genuine relation to the contents of the *upâṅga*. In this latter case there exists perhaps some connection with a Buddhistic text of similar denomination, to which we may, in the last instance, ascribe some influence in bringing about the transformation of the text. We have seen that the constituent parts of the text in general have been exposed to modifications of the most varied character; and the same, we can confidently assume, has been the case with the state of the text itself. The peculiar style of these works in the first instance is to be held responsible for this result. The massiveness and ponderosity especially of the presentation by means of continual repetitions and constantly recurring stereotyped forms, has often sorely tried the patience of the Jain clergy. All the precautions which were taken by the division of the text into *granthas*, that is to say, groups of 32 syllables[38] and by counting the latter by hundreds [232] or by thousands, which precautions according to Jacobi, *Kalpas*, p. 24 emanated from Dêvarddhigaṇi himself, have not been able to protect the text against the insertion of single words, or against abbreviations and omissions. The latter were then made good by reference to the parallel passages in other texts, cf. p. 228. All this, together with the dangers accruing from the constant copying of the MSS., has produced a state of confusion which is utterly irremediable. Often the catchwords alone, the skeletons of the page so to speak, are left, and that which must be supplied is to be found in the preceding, which was identical in tenor. The omitted portion was thus left to oral delivery or to oral instruction. The allusions to certain stereotyped descriptions, the *epitheta ornantia*, the so-called *vannaa*, *varṇaka*, are doubtless to be referred to the period of the redaction.

So the **text itself**, as we see, has met with enormous losses in the course of time; also the **form of the words** has suffered equally. I do not refer here to the frequent pâṭhas, of which mention has already been made and which were intentionally changed from reasons of the most various character, but to the form of the words itself. The Prâkṛit of these texts was, as we have seen, page 221, afflicted in the very beginning with "a thorn in the flesh." Its origin is to be sought in the East of India, in Magadha, and it was therefore provided at the start with those peculiarities, or at least with a good part of them, which belonged to the *Mâgadhî* dialect, according to the testimony of the old inscriptions and of the tradition of the later grammarians. These texts were collected for the first time [233] by the Council of Pâṭaliputra probably in that dialect, and after 800 years' transmission by word of mouth, if we trust the voice of tradition, were codified in writing in Western India. In this codification the attempt was doubtless made to preserve a part of the ancient grammatical form, particularly the termination of the Nom. Sing. Masc. of the 1st decl., in *ê* not in *ô*. Such was the ancient colouring of the language of the "Scriptures," as the texts were now called. But, aside from this attempt at preserving an ancient flavouring, it may be stated as a general proposition that the texts were written down in that form, which the language assumed at the time and place where the written codification took place. In the case of those texts which were then not merely collected or compiled from ancient material, but newly created by the sole assistance of this ancient material, the desire to preserve the ancient form held good merely as regards the ancient citations. The remainder of the contents, including the notes of the redactor and his additions, was at the outset, composed in the new form (*e. g.* Nom. in *ô*, not in *ê*.). This then remained for the future the only authoritative form which, as far as can be discovered, was imperfect and contaminated by the most varied defects. No reference was paid to a substructure of grammar, and the flexibility of the rules as regards flexion or non-flexion recalls the latitude which

[38] Also called *slôka* or *anushṭubh*. See *Ind. Streifen*, III. p. 212.

the Prâkṛit grammarians of a later age [234] ascribed[39] to the *Apabhraṅśa* in this particular. In compounds the single members are either entirely without Saṁdhi, or the case termination is lacking in the latter member, so that it stands, like the other members, in its pure thematic form. The pure theme especially is frequently found instead of the inflected forms in the *kârikâs*, which are inserted into the *aṅgas*. The gender and number of the words which are associated, do not agree in a very large number of cases.[40] The insertion of an inorganic *m* in the middle of compounds and at the end of a word, is a recognized practice. Corresponding occurrences or rather beginnings of such a use are found even in ancient times, and in fact in the *Vêda* (cf. *śatamûti*). The use of the particles *tô* (from *atô*) and *û*, *tu* and *u* as mere expletives, is exceedingly common. The indiscriminate variation of *i* and *u* with *ê* and *ô* before double consonants makes many passages obscure and difficult. If to these considerations we add the so-called *yaśruti* it is apparent what a wide field is opened up for the disfigurement of words. There is, however, one circumstance more, and that of a very peculiar nature. By reason of the falling out at any time of a *t* in the frequently recurring forms of the 3rd pers. Singul. Pres., and of the Part. Perf. Pass., a misunderstanding arose in the minds of the copyists, which is only to be explained from the fact that there was no absolutely established grammatical use. This misunderstanding arose from the belief of the grammarians that *t* was a sound [235] that could be omitted or inserted at pleasure. The insertion of such an inorganic *t* in time gained ground so extensively, that the recognition of the original form becomes a matter of exceeding difficulty. As a matter of fact it can be proved that this situation of affairs led even at quite an early date to grotesque misunderstandings[41] As the result of all this many words of the texts are exceedingly corrupt. We find therefore it almost beyond belief when we consider the nature of the licenses which modern Jain authors allow themselves when they write Prâkṛit. In the scholia all matter of this class is explained simply as *chhândasa*, or *ârsha*. If now, despite the above great transformation of the constitution and condition of the text of the *Siddhânta* since Dêvarddhigaṇi, it is always difficult in a given case to demonstrate the posteriority of any definite text after him, there is nevertheless, [236] in the contents a sufficient number of dates which correspond exactly, or at least tally well, with the period in which he is placed by tradition, namely the fifth century A.D.

Of the evidence of this character we must first mention the astronomical and astrological conceptions, which are anterior to the authoritative influence of Greek astronomy, or at least in all essentials independent of it. There is as yet no knowledge of the Zodiac; the planets are not arranged in the Greek order (as is the case in several of the Ath. Pariś.), and play a very unimportant part. The *nakshatras* and the Vêdic *yugam* of five years still hold sway. The *nakshatras* are often found, arranged after the old order, starting with *krittikâ*. At the same time we find in the *upâṅgas* the change of the vernal equinox from *krittikâ* to *bharaṇî* indicated by the commencement with *abhijit*, which is such a favourite in the *upâṅgas*.[42] In this fact we have a sign that the influence of Greece had already become active. In general, however, the statements of the *upâṅgas* still represent the stage of the so-called *Jyôtisham* and of a part of the *Atharvapariśishṭas*. The names of the *karaṇas* that have a foreign sound:—*bava*, *bâlava*, etc. belong, it is true, to the *upâṅgas*; *hôrâ* is found however for the first time in *painna* 8, v. 60.

We must also mention the enumeration of

---

[39] A perfect analogy is presented by the peculiar Sanskṛit of the North Buddhistic texts *Lalitavistara*, *Mahâvastu* etc.

[40] Just as in the texts of the *Avesta*, especially the *Vendidad*, which were collected at about this period.

[41] All sorts of false forms which had no claim to existence come gradually into use in this way. An interesting case of this, which, if my conception is correct, transplants us into a period before *Varâhamihira* A.D. 504–587, will be found in the name of the metre [illegible] in [illegible] 2, 1, 2. The title of the first *upâṅga* is [illegible] stated to be *aupapâtika* instead of [illegible]. The name *Mêyyâ* (*Mêtiyyo*) became *Mêtârya*, the common form. In my treatise on the *Śatruñjaya Mâh.* p. 3, 4, when I had no knowledge of this inorganic *t*, I conjectured *Mêtârya* to have originated from *Maitrêya*. The Schol. on *aṅga* 2, 2, 7 has, it must be confessed, *Mêtârya*. Furthermore the later Jains have been guilty of all sorts of wild misconceptions in reference to their own language; as for example, the completely erroneous explanation of the name *nisîha* by *niśîtha*. In this category we may perhaps place *Lechchhaki* for *Lechchhavi*.

[42] So also in *aṅga* 3, in *aṅga* 4, 7 probably in an interpolation. The names of the *nakshatras* appear, we may notice in passing, here only in their secondary form, thus:—*pushya*, *bhadrapadâ*, etc.

the foreign, non-Aryan peoples, [237] which are frequently referred to in the *angas* and *upângas*. This enumeration transplants us with tolerable certainty to a period from the second to the fourth century A.D., which is the most ancient period in which the enumeration can have originated, though the present texts may be much later. The mention made of the Arabians among the list, in the form *ârava*, which has yet not been discovered as occurring elsewhere in India, might lead us to suppose that we had to deal with a period far posterior to that delimited above. This could, however, be the case only on the supposition that the Arabians of Islam are referred to. It is my opinion that a reference to an ante-Islamic period (in which Arabia and India were closely connected by commercial ties), is as fully justified as a reference to the Islamic period. From the mention of this peculiar denomination of the Arabians, which as before said appears here for the first time in the history of Indian literature, I conclude that the first author of the enumeration in question lived in a part of India in which the commercial connections with Arabia were very close, that is to say, on the west coast. The mention made of the seven schisms in *anga* 3, the last of which occurred in the year 584 Vîra, compels us to regard the second century A.D. as the extreme limit *à quo* for the composition of the texts of the *Siddhânta*. We have therefore to conclude that the period from the second to the fifth century is the period to which their composition must be relegated.

The other dates, which we can extract from the texts, are in agreement with this delimitation of the period of their origin; of special importance are the references in the *angas* to the corpus of Brâhmanical secular literature [238] which existed at that time, see *Bhagav.* 1, 441; 2, 146-8. Then too the use of the word *anga* to denote the oldest portions or the chief group of the *Siddhânta*[43] deserves attention, and makes probable the assumption that the period of their origin is the same as that to which belong the Brâhmanical *angas* and *upângas*, often alluded to in their most ancient portions. The second of these two names (*upânga*) has been adopted by the Jains as the title of the second chief group of their texts. I have already called attention to the close connection between the astronomical doctrines of the *angas* and those of the "*Jyôtisha*" *vêdânga*. Finally may be mentioned (see *Bhagav.* 1, 383) the solemn composition in the *âryâ* measure[44] of verses which are cited in the *Siddhânta* or inserted therein. This measure must at the time of the redaction of the *Siddhânta* have enjoyed especial authoritativeness, otherwise it had never been made so exclusive a vehicle of composition. We must however call attention to the fact that the oldest metrical portions of the texts are not composed in *gâthâs* but in *ślôkas*: thus *anga* 2, the metrical portions of the *chhêdasûtras* and those of *mûlasûtras* 1 and 3 [239] are composed in *ślôkas*, while the *nijjutti* and *chûrṇi* belonging to those mûlas, are in *gâthâs*. In *anga* 2 we find also the *vaitâlîya* measure. The name of this metre (cf. *ad loc.*) which exists even in the "*Chhandas*" *vêdânga*, appears to have been caused[45] by a misunderstanding of the name of a chapter of this *anga*, brought about by the insertion of an inorganic *t*. The existence of the name of this chapter of the *anga* would receive by this supposition a valuable attestation, inasmuch as it dates far back to a very remote period. In *ślôkas* and *vaitâlîyas* are composed the verses of the *Dhammapada* of the Buddhists, with which several portions of this *anga*, as well as of *mûlasûtras* 1 and 3, are very closely connected.

We come at this point to a question, which I will here merely mention. What is the relation of the *Siddhânta* of the Jains to the sacred writings of the Buddhists, both northern and southern? A few sidelights of this character will be brought into use as the course of our investigation progresses. The solution of the question can only then be successfully

[43] The Buddhists in the case of the chief group of their own scriptures make use of the word *sûtra* to denote a class of literature of somewhat ancient date. The word *sûtra* occurs also in the colophons of the *Jaina-Siddhânta* and plays a very important *rôle* in the Scholia, yet is never used in the texts themselves with the same significance as among the Buddhists, if we except the *Anuyôgadvâras*, and *Avaśyaka-nijjutti* together with that section of *anga* 12 which has the specific title of *suttaim*. See *Bhag.* 1, 441. 2, 196, 247 and *Vorlesungen über Ind. Lit.-Gesch.*² 316. The style of some of the oldest parts of the *Siddhânta* reminds us in a very slight degree of that of the later Brâhmanical *sûtra*. In reference to the connection, of somewhat problematic character, between *sâmâyika* or *sâmâiya* and *sâmâyikachârika*, see later on under *anga* 1 or in *Uttarâdhy.* 16.

[44] There is frequently a great lack of metrical correctness in these verses.

[45] The metre in question existed earlier as may be seen from its use in the *Dhammapada*.

undertaken, when we are in a position to compare the texts themselves.

The following review of the contents of the *Siddhânta* endeavours, in the first place, to disclose to us the actual constitution of the texts which are at the present day reckoned as belonging to the *Siddhânta.* In this review I follow the order adopted by Bühler (see above, page 226). Secondly, it purposes from the dates contained therein to cast light upon the most important points for the date of the composition of each single division, and for the life of the founder [240] of Jainism, as far as this is possible for me in this first assault upon its literature, remarkable not less for its immensity than for its monotony and intellectual poverty.

The more exact details will be found in the second part of my catalogue of the Sanskrit and Prâkrit MSS. of the Royal Library of Berlin, which is at present in the press.[46*] I have unfortunately been able to make use of the editions of *anga* 10 and *upânga* 2 alone out of the Calcutta and Bombay editions of the *angas* and *upângas*, published 1876 ff.

At the conclusion of this introduction it may be permitted me to state that personally I still continue to regard the Jains as one of the oldest of the Buddhistic sects.[47*] The fact that the tradition in reference to the founder of Jainism deals partly with another personality than Buddha Śâkyamuni himself—with the name of a man who in the Buddhistic legend is mentioned as one of the contemporary opponents of Śakyamuni—this fact, I say, does not, in my opinion, militate against the conclusion that Jainism is merely one of the oldest of the Buddhistic sects. It appears to me that the conception of the founder of Jainism as an opponent of Buddha can well be regarded as an intentional disavowal of religious opinion which took its rise in sectarian hate. The number and the significance of common features in both Buddhistic and Jain traditions in reference to the life and labours etc. of each of their founders outweigh any arguments that make for the contrary opinion. If we reflect—and I here repeat what I have said on page 219—that the Jain texts were, as the Jains themselves claim, codified in writing 1000 years after the death of the founder of Jainism, then it is really marvellous [241] that they appear to contain so much that is original. How large the number and how influential the character of the events which occurred in the interval, is for the present veiled in obscurity, although the information emanating from the Jains themselves (or more particularly from the Śvêtâmbaras with whose literature we have specially to do) in reference to the seven schisms etc.[48] affords us at least some slight base of operations. One fact, for example, is noteworthy:—that the nakedness, which is adduced by the Brahmins (*e.g.* also by *Varâhas mih.* 58, 45. 59, 19) as a chief characteristic of the Jains, and which according to Buddhistic statements, was resolutely opposed by Buddha, assumes an unimportant position in the *angas* and at least is not regarded as a matter of necessity, see *Bhag.* 2, 187, 239, 314. Later the necessity of appearing naked was introduced as a dogma by a sect of dissenters. If we take into consideration the hate which the Śvêtâmbaras, who played the *rôle* of the orthodox sect, manifested so vigorously against the Digambaras in particular[49] (*Kup.* 797 7), it is no rash conjecture to assume that many prescriptions or traditions in regard to this point have been removed from the Siddhânta of the *Śvêtâmbaras.* Even the orthodox do not deny that the Jinas themselves went naked;[50] they assert merely that, what was permissible then is no longer permissible at the present day.

At the head of [242] the *Siddhânta* stand then:

a. The 11 (or 12) *angas.*

We have seen above on page 211 ff. that, according to tradition, at the time of the first Jina all 12 *angas* were extant; that then be-

[46*] Of this new catalogue Vol I has since appeared under the title: *Die Handschriften-Verzeichnisse der Kgl. Bibliothek zu Berlin,* Vol V Part II. Vol I 352 pages: see *ante,* 1887, p 316 Vol II. p 353-828 which is particularly devoted to the sacred Jain Literature, is nearly ready —L.

[47*] This view (which in Europe has apparently persuaded only M Barth of Paris) will scarcely be maintainable any longer, since Prof Bühler has discovered inscriptional proofs for the authenticity of the old Thêra lists given by the *Kalpasûtra* see the two papers by Bühler in the *Wiener Zeitschrift für die Kunde des Morgenlandes,* Vol. I, p 165ff. and Vol II, (III), p 1ff—L

[48] According to v. 43 of Dhammaghôsa's *Kâlasittari*: têrasasaehim (1300) Vîrâ hohinti anêgahâ mayavibhêâ | bamdhamti jehim jivâ bahuhâ kamkhâi môhanam ||

[49] desavisamvâdinô dravyalingênâ 'bhêdinô nihnavâh, Botikâs tu sarvavisamvadino dravyalingato 'pi bhinnâh, according to the Vichârâmrita-samgraha in Malayagiri's Comm to *Âva-y*; cf. Jacobi, *Kalpas.* p 15n

[50] See Wilson *Sel. W* 1, 294 ed Rost in reference to the nakedness of Mahâvira cf also the characterization of his doctrine in *anga* 3, 9 fin as *achêlaê.*

tween Jinas 2—9 there existed only eleven *i. e.* all except *aṅga* 12; that between Jinas 9—16 those eleven also were lost, whereas in the time of, or between, Jinas 16—24, all twelve were extant, and that the 12th afterwards was again[51] lost. If we exclude the mythical first Jina from our consideration, the essence of this tradition is perhaps this: the number of the *aṅgas* was at first eleven, to these a twelfth was joined, which twelfth *aṅga* was again lost. This assumption corresponds to the conclusions to be derived from the *Siddhânta* itself. In the *aṅgas* themselves and in the *upâṅgas* too,[52] only eleven *aṅgas* are as a rule mentioned. The principal exception to this assertion is the fourth *aṅga*, where at the very outset we find a short enumeration (which can easily be shown to be of secondary addition) of the single parts of the *duvâlasaṁgaṁ gaṇipiḍagaṁ*; alike in §§18, 46, 88, some declarations in reference to *aṅga* 12; and finally at the end a detailed exposition of this subject, in which the *duvâlasaṁgaṁ gaṇipiḍagaṁ* is glorified as having existed eternally in the past and as destined to exist forever in the future. This laudation of *aṅga* 12 is very surprising, and may well be explained as an intentional polemical assertion to satisfy all doubts that might arise. According to all probability this last section, which is found almost *verbatim et litteratim* in the *Nandî*, composed probably by Dêvarddhigaṇi himself, [243] is to be regarded as a later addition to *aṅga* 4, whether it was borrowed from the *Nandî* itself, or, if this cannot be the case on account of some few differences between them, from a common source. Besides this mention in *aṅga* 4 and some other references, which eventually may also be of secondary origin (*e. g. aṅga* 5, 20, 8) the *duvâlasaṁgaṁ gaṇipiḍagaṁ* is mentioned only in those portions of the *Siddhânta* which do not belong to the *aṅgas*.

The later origin of the passages in question is manifest from the form in which they are referred to.

When anything is said of the eleven *aṅgas*, they are always characterized[53] as "beginning with the *sâmâyika*," in case the statement is not merely limited to this number itself, but when the first one is specifically referred to by name. When, on the other hand, anything is said of twelve *aṅgas*, in which case the titles of each and all are generally cited, the first *aṅga* is not called *sâmâiya*, but *âchâra* (*e. g.* also *aṅga* 5, 20, 8); the latter name is found in the MSS. and elsewhere up to the present day. This direct variation between the two forms of denotation is peculiar and surprising, but may perhaps be explained as follows:—The word *sâmâyika* was perhaps originally a synonym of *âchâra*. I derive[54] it from *samaya* and hold that it is equivalent to the Brâhmaṇical *sâmayâchârika* (see M. Muller, *Hist. Anc. S. Lit* p. 206 fg.) which here appears probably [244] in the term *sâmâyâri* (see *Uttarajjh.* 26). This may be regarded as a counterpart of *sâmayâchârika*. In *upâṅga* 1 at the end of the first part, the *dharma* of Mahâvîra is designated in a general way as *sâmâia* or as *agârasâmâie dhammê* and *aṇagârasâ°*. The use of the word in this universal signification in a legend is attested for Mahâvîra's predecessor Pârsva; see *Bhagav.* 2, 184. Besides this wider signification there was developed a second more restricted use (see the reference just quoted) viz.—the first member of the six so-called *âvaśyakas*[55] *i.e.* necessary observances, the treatment of which forms the chief subject of the *Anuyôgadvârasûtra* and of the sûtra text, on which the *Âvaśyakanijjutti* is based. In both these works and in the *Nandî*, which in turn also makes special mention of the six *âvaśyakas* with *sâmâiya* at the head, the *duvâlasaṁga gaṇipiḍaga* with *âchâra* at the head is principally spoken of. Consequently it is easy to conjecture that the use of the word *sâmâyika* occurring here in its pregnant sense as the title of the first *âvaśyaka*, has been the cause of the dropping of this denotation for the first *aṅga* (in order to avoid any misunderstanding[56]), and the reason of the choice of the title *âchâra* for this *aṅga*, [245] a title which is perfectly clear.[57]

[51] Accord. to *Bhagav.* 20, 8, *aṅga* 12 was lost *savvattha*, *i.e.* in all 23 *jiṇantaras*, as Leumann informs me.

[52] But see *up.* I. 26 (p. 36, Leumann)

[53] Sâmâtiga-m-âdiyaṁ *i. e.* sâmayikadîni, see *Bhagav.* 2. 281-3. 300. *up.* I. 31 remains an exception (Leumann, p. 44).

[54] cf Pâṇ. 5, 4, 34 where in the gaṇa, samaya and samayâchâra are found, also *sâmaiya* (var. 1): the form sâmâ° might be regarded as an intentional differentiation for sâma°: cf the âkritigaṇa *anusatika* as also sâmgrâhika, from samgraha, in Abhayadeva on *aṅga* 4, who even uses *svâsâmâyika* as the adj. to *svasamaya*. The Jains themselves affect several etymologies, and generally regard *sama* as the first member of the compound See also Bhag. 2, 186.

[55] These form the first of the ten groups of the *sâmâyârî*, see *Uttarajjh.* 26.

[56] It is very peculiar that in *Âvaśy. nij.* 2, 8 sâmâia appears as the title of the first âvaśyaka and only six verses later on in 2, 14 as title of the first *aṅga*.

[57] The change may have been favoured by the union of both words in the Brahmaṇical term *samayâchâra*.

Furthermore transitional stages may be found. In *Âvaśy. nijj.* 2, 14 we read *sâmâia-m-âiam suanâṇam jâva bindusârâo*. Here the first *aṅga* is still entitled *sâmâia* although twelve *aṅgas* are treated of: *bindusâra* is the title of the fourteenth *purva* or of the concluding section (the third part)[57] of the twelfth *aṅga*. In *Chhêdas.* 2, 3 the same is said of the *duvâlasaṁgaṁ* [illegible]: that it is *sâmâiya-m-âi* [illegible] [illegible] *payyavasaṇaṁ*.[59*]

If now the passages in which eleven *aṅgas* with *sâmâia* at their head are spoken of, are older than those in which reference is made to twelve *aṅgas* with *âyâra* at their head, it becomes self-evident that the twelfth *aṅgam* has been added to the other eleven as a secondary addition. According to tradition and to the actual state of the case, the twelfth *aṅga* did probably not long assert this secondary position which it had acquired: and at present at least is no longer extant. Doubtless it was lost long ago (cf. page 213). From this latter state alone we may conjecture that there existed a species of opposition, an actual incongruity between it and the other eleven *aṅgas*, which led to its loss. For the confirmation of this assertion we still have proof. In both the works, which we have just found to be the two principal witnesses for the existence [246] of the *duvâlasaṁgaṁ gaṇipiḍagaṁ*, viz. in the *Aṇuyôgadv.* and in the *Âvaśy. nijj.*, the twelfth *aṅgam* under its title *Diṭṭhivâa* or *Dṛishṭivâda*, is placed in direct opposition to the other eleven *aṅgas*, which are there included in the collective title of *kâliyaṁ suaṁ kâlikaṁ śrutam*. This occurs in the *Aṇuyôgadv.*, in the section *parimâṇasaṁkhâ*, where the means are explained by which the sacred text is assured through counting its constituent parts. Common subdivisions are ascribed to both its above mentioned parts, but for the chief sections the titles *uddêsaga*, *ajjhayaṇa*, *suakhaṁdha*, *aṅga* are given to the *kâliasua*, the titles *pâhuḍa*, *pâhuḍiâ*, *pâhuḍapâhuḍiâ*, *vatthu* however to the *diṭṭhivâa*. According to this (and the other statements in reference to the division of the *diṭṭhivâa* are in agreement herewith) there existed between both these groups of texts a fundamental difference in the designation of their chief divisions. This may probably be referred to a different origin or to a different treatment of the subject matter of both.[60*] In the *Âvaśy. nijj.* 8, 54 two other texts are mentioned (*isibhâsiyâi* and *sûrapannatti*) besides *kâliasuam* and *diṭṭhivâa*. Of these the first is lost, the second has found lodgment among the existing *upâṅgas*. Its agreement with the *diṭṭhivâa* in its division into *pâhuḍa*, leads us to conclude that it must have some connection with it. Finally of special importance is a notice, found but a short distance from this in the same text (8,40), according to which [247] up to the time of *Ajja Vaïra*, that is, of *Vajrasvâmin*, *apuhatte* (*aprithaktvam*) *kâliâṇuôassa* existed, and the *puhattaṁ* (*prithaktvam*) "*kâliasua diṭṭhivâê a*" had found entrance later on: têṇ'ârêṇa, tata âratah.—(*To be continued.*)

MISCELLANEA.

PANDIT BHAGVANLAL INDRAJI

By the premature death of **Pandit Bhagvânlâl** Indraji, which occurred on the 16th March last, Indian epigraphists have lost an enthusiastic and able fellow-worker, whose place it will be difficult to fill, and many among them a valued personal friend, whose interesting and sympathetic communications they will greatly miss. Short as was the period during which it was permitted to him to stand forward as an independent scholar, his indefatigable zeal and rare ingenuity have contributed materially to the progress made of late years in the field of Indian epigraphy and history. His career as a scholar is a most remarkable one, and deserves to be described much more fully than I am able to do with only an imperfect recollection of the particulars of its earlier portion, which he communicated to me during our pro-

[57] Both the following parts are herewith completely ignored.

[59*] On the authority of such passages the [illegible] [illegible] [illegible] works, e.g. in the commentary to Dharmadâsa's [illegible] [illegible], also in the *Nandî*[illegible], see ed. of the *Nandî*, p. 390.—L.

[60*] In the tradition referred to on page 215 the priority of the *pûrva* over the *aṅgas* is claimed. Their position in the last *aṅga*, at the conclusion of the others, is however not in harmony with this claim. The title *purva* has rather reference in the last instance to the contents. See below on *anga* 12. It must however be taken into consideration that the old accounts on the rise of the Jain schisms mention only the *purvas* and not the *angas*, see my paper "*Die alten Berichte von den Schismen der Jaina*," *Ind. Stud.* Vol. XVII. pp. 107 and 112.—L.

longed intimate intercourse in India. Yet I comply with the request of the Editors of this Journal to write a notice of his life, because I trust that I shall at least be able to do justice to his character, to his scientific attainments, and to the results which he achieved.

Pandit Bhagvânlâl belonged to a highly respectable Brâhman family of Junâgaḍh which like many others for a long time has received support or employment from the Musalman rulers of Sôrath. An elder brother of his used to be the head of the Sanskrit school, maintained by the *Darbâr*, and is, as I hear, still in the service of H. H. the Nawab. As is usual with the children of those Brâhmans who cultivate the hereditary learning of their caste, Pandit Bhagvânlâl was taught Sanskrit from his childhood, in addition to the subjects of the ordinary curriculum of the vernacular schools. He acquired a fair knowledge of its classical literature, but he cared little, as he has repeatedly told me, for the abstruse lore of the *Sâstras*. Like other compatriots of his who live in the shade of the Girnâr Mountain, he felt more attracted by the historical traditions of his native province which, as a matter of necessity, are kept alive by its numerous ancient buildings and epigraphic monuments. His taste and aptitude for antiquarian researches showed itself very early. When still a boy, he used to pay visits to the venerable rock, on the road to Girnâr, on which the edicts of Aśoka and the inscriptions of Rudradâman's and Skandagupta's lieutenants are incised. A little later he studied their ancient characters with the help of a copy of Prinsep's tables of the Indian alphabets, and tried, availing himself of the transcripts of the earlier epigraphists, to decipher their contents. These attempts, which were not altogether unsuccessful, came to the notice of Mr. Kinloch Forbes, the generous patron of native talent in Gujarât, and he recommended the young amateur to Dr. Bhâû Dâjî, who was on the look-out for a Paṇḍit, able to assist him in his epigraphic researches. Pandit Bhagvânlâl eagerly availed himself of the chance which offered, and in 1861 entered Dr. Bhâû Dâjî's service, in which he continued during more than twelve years. These years were his *Lehr- und Wanderjahre*, the period of his apprenticeship and travels. The introduction to the paper on the Rudradâman and Skandagupta inscriptions (*Jour. Bo. Br. R. A. S.* Vol. VII, p. 113), as well as that to the article on the Ajanta inscriptions (*ibidem*, p. 53ff), tell us how Dr. Bhâû Dâjî worked with his assistants, and how he trained them. It appears Pandit Bhagvânlâl prepared, sometimes alone and sometimes checked by another copyist, eye-copies and rubbings of the documents intended for publication. The texts, thus obtained, were carefully examined and considered by Dr. Bhâû Dâjî and an able Paṇḍit, Mr. Gopâl Pâṇḍurang Padhyè, who was a thoroughly good Sanskrit scholar. For doubtful passages the originals were compared afresh. Pandit Bhagvânlâl had again to visit the sites and to seek the solution of the remaining difficulties. Sometimes he had even to wait there for criticisms on his new proposals, and to pronounce on the possibility of readings proposed by his master. As a matter of course, Dr. Bhâû Dâjî consulted for his own articles the writings of the earlier epigraphists and the translations of the Greek and Chinese accounts of ancient India. He by no means confined himself to works written in English, but had prepared for himself MS. translations of some of the most important French and German books, such as Burnouf's *Introduction à l'histoire du Bouddhisme*, the appendices to the *Lotus de la bonne loi*, St. Julien's *Life and Travels of Hiuen Tsiang*, and Lassen's *Indian Antiquities*. In the conferences with his assistants, he naturally brought forward the views of the most eminent among his predecessors in the same field; and showed how the notes of the ancient travellers might be utilised. Paṇḍit Bhagvânlâl thus not only received a good training in the method of treating inscriptions, but also became acquainted with the history of the science in which he worked, and learned to appreciate the great importance which the notes of foreign visitors possess for the history of India. This training laid the foundations of the position as an epigraphist which he later gained. The aptitude and the zeal which he showed, induced Dr. Bhâû Dâjî to confide to his assistant the duty of transcribing all the numerous land-grants which he purchased or received on loan, and to employ him on a kind of epigraphic survey which, beginning in the Bombay Presidency, was gradually extended over the greater part of India. Paṇḍit Bhagvânlâl's journeys through Gujarât and Kâthiâvâḍ, and those to Ujjain, Vidisâ, Allahabâd, Bhitari, Sârnâth and Nepâl, as well as some of their results are incidentally mentioned in Vols. VII, VIII, IX and XI of the *Journal* of the Bombay Br. R. A. S. But these short notes give by no means an adequate idea of the enormous extent of his travels, and the very great amount of work which he performed. In Western India, he travelled not only through the northern half of the Bombay Presidency, but also through the greater portion of eastern and western Râjputânâ, including the desert as far as Jaisalmèr. In Central India he explored, besides Mâlvâ and Bhopâl, also Sindiâ's territory, a part of the Central Provinces, and the Agrâ, Mathurâ,

Allahâbâd and Benares Districts. In Eastern India, he repeatedly visited Bihâr, both north and south of the Ganges, a part of Bengal Proper and the caves of Orissa In the North he went as far as Shâhbâzgaṛhî in the Yûsafzâi District, and as far as Nêpâl at the other extremity of the Himâlayan range. On these journeys, which were not made continuously, but with intervals of rest at Bombay, he took copies, mostly ink-impressions and paper rubbings, of all the more important known inscriptions, and of numerous unknown ones which he discovered. He also collected hundreds of coins and MSS., and gathered much curious and important information regarding the ancient monuments, and the castes and religious sects of the districts through which he travelled, as well as many historical traditions. With respect to the inscriptions and coins, he by no means confined himself to the mechanical work of collecting and taking copies. He made transcripts and translations into Gujarâtî, arranging them in their proper order and drawing up tables of the various alphabets. In 1875 and 1876 I saw in his library a number of large carefully indexed volumes which contained the results of his work performed at home and on his journeys. During this period he also learned a little English, just sufficient to read the scientific works on India and Indian matters, and studied Prâkṛit with a Jaina Gorji, who for some time was in the employ of Dr. Bhâû Dâjî.

These extensive and varied researches completed his education as an epigraphist; and made him fit for his career as an independent scholar, which soon after he was forced to begin.

Just about the time of his return from Nêpâl, his connexion with Dr. Bhâû Dâjî was brought to an end by the death of that gentleman, which occurred on the 29th May, 1874. The circumstances of the family were not such as to permit their employing Paṇḍit Bhagvânlâl any longer, or their thinking of a publication of the accumulated materials. But they allowed him to keep the facsimiles and transcripts which he had prepared, and thus gave him a chance of accomplishing what his master had failed to carry out. Though the revival of epigraphic studies had then begun in Western India, and though Dr. Burgess would have gladly welcomed a contributor of Paṇḍit Bhagvânlâl's attainments, the seclusion in which he had been kept from all contact with European Sanskritists, his precarious worldly position, and his inability to express himself in English, prevented him from coming forward at once. It was fully two years later that his first article was sent by me to the *Indian Antiquary*, and others were laid by Dr. O. Codrington before the Bombay Br. R. A. S. Paṇḍit Bhagvânlâl first visited me in the spring of 1875, while I was temporarily staying in Bombay for some official business. He told me, among other matters, that he had made some discoveries on the value and the origin of what then used to be called the cave-numerals. My journey to Kaśmîr prevented my paying at once serious attention to this affair. But when, after my return, he came again, showed me the drawing of his plate, and explained his theory, I felt such an admiration for his ingenious and important discoveries that I offered to put his notes into shape and to get the article published. We prepared it together, and Dr. Burgess printed it in the February number of the *Indian Antiquary* for 1877. In the meantime, the Paṇḍit had been introduced to Dr. O. Codrington, then Honorary Secretary of the Bombay Br. R. A. Soc., who lent him his assistance for the preparation of four short papers on coins, inscriptions and numeral signs (*Jour. Bo Br. R. A. S.* Vol. XII. p 404). Shortly after the appearance of his first publications, Paṇḍit Bhagvânlâl was elected, in April 1877, an honorary member of the Bombay Asiatic Society on the motion of the late Mr. J. Gibbs; the proposal being seconded by myself and Dr. Codrington. This first recognition of his merits greatly encouraged him, and was of great importance for his career, as it gave him the free use of the Asiatic Society's Library. He amply repaid the obligation under which the Society had laid him, by many excellent contributions to its Journal, and he fully justified the honour shown to him by his incessant literary activity, which continued uninterruptedly almost to the hour of his death. The total number of his published articles is twenty-eight, besides which he has furnished large contributions to some volumes of the *Bombay Gazetteer* and smaller ones to Sir A. Cunningham's *Archæological Reports*.

They contain many discoveries which will be of permanent value, and will cause his name to be remembered as that of one of the most successful students of Indian epigraphy and history.

In palæography, he finally settled the values of the signs of the ancient numerical system. It is an undeniable fact that since the appearance of his plates in the *Indian Antiquary* and in the *Jour. Bo. Br. R. A S.*, the vacillations in the readings of the dates, expressed by "cave-numerals," have disappeared, and that now differences on such points are rare among competent epigraphists. His theory that the "cave numerals" are letter-numerals has been disputed, but makes way more and more. This much seems now indisputable, that, whatever the origin of these signs may be,

they have always been considered by the Hindus of historical India as syllables, and that the changes which they show in various documents, in the main depend on the character of the alphabet used. In the interest of truth I cannot suppress the remark that Paṇḍit Bhagvânlâl's name ought to have been mentioned by Dr. Bhâû Dâjî in his article on the cave-numerals. I have strong reasons for the belief that at least a considerable share of the results, at which Dr. Bhâû Dâjî arrived, is due to Paṇḍit Bhagvânlâl's industry and ingenuity. Another service which he has rendered to palæography, is the discovery of the real value of some signs of the most ancient Southern and Northern alphabets. He first recognised the *ḷa* on inscriptions of Rudradâman and of Pulumâyi. His transcript of the first rock-edict in the Shâhbâzgarhi version, *Ind. Ant.* Vol. X. p. 107, for the first time rendered the signs for *thi* and *men* correctly. The discovery of the *tha* was made simultaneously by Dr. Hoernle. To his skill, finally, we owe some of the finest facsimiles of inscriptions, among which the Nasik series in Volume IV. of the *Archæological Reports of Western India* deserves a special mention. Paṇḍit Bhagvânlâl's services to historical research are very numerous and varied. The fragment of Asoka's eighth rock-edict, which he found at Supârâ, shows that the great Maurya held the western coast of India as well as the eastern one, and explains the occurrence of a later Maurya dynasty in the Konkan. Equally important is his discovery of an era of the Maurya kings in the Udayagiri inscription of Khâravêla. In my opinion, it is now probable that, though Asoka dates according to regnal years, the Mauryas had and used an era of their own; and I hope that, when the now absolutely necessary excavations at Patna have been made, records will be discovered which will furnish a real and full account of the beginning of the historical period of India. The same paper on the Hathigumpha inscriptions, which makes us acquainted with the Maurya era (*Actes du Sixième Congrès Int. des Or.* Vol. III. pt. 2, p. 152) gives also the first account of the ancient Cheta dynasty which ruled Kalinga in the second century B.C. It also shows that king Khâravêla was the contemporary of one of the early Sâtakarnis of the Andhra dynasty, and thus establishes a valuable synchronism, the full importance of which will, however, only appear when the beginning of the Mariyarâjakâla has been definitively settled. Paṇḍit Bhagvânlâl's researches have also in other respects materially advanced our knowledge of the history of the Andhras. He first recognised the value of the Nânâghât inscriptions, and did much for their interpretation (*Jour. Bo. Br. R. A. Soc.* Vol. XIII p. 303) and for that of the Paṇḍu Lenâ inscr. (*Bombay Gazetteer.*) He discovered two new kings of this dynasty, Mâḍhariputa-Sakasêna or Sirisêna and Vâsithiputa-Chaturapana (?) (*Jour. Bo. Br. R. A. S.* Vol. XII. p. 407 and Vol. XV. p. 306). By his article on the Andhrabhritya coins (*ibidem.* Vol. XIII. p. 303) he contributed much towards settling the sequence of some of the later kings. As regards the later Indian dynasties, he has been the path-finder in the history of Nepâl, for the explanation of which his twenty-one inscriptions (*Indian Antiquary*, Vol. IX. p. 163, and XIII. p. 411) have laid the foundations. The pedigree of the Râshṭrakûṭas of the Dekhan has been lengthened by his discovery of the Elûra inscriptions (*Arch. Surv. W. I.* No. 10, p. 92). The recognition of the existence of a once powerful Traikûṭaka dynasty in Western India is solely due to his revised edition of Dr. Bird's Kanheri plate (*loc. cit.* p. 57), and to his paper on the grant of king Dahrasena (*Jour. Bo. Br. R. A. S.* Vol. XVI, p. 316). The elucidation of the history of the Silâhâra chiefs of the Dekhan and of the Konkan, owes much to his two papers in the *Jour. Bo. Br. R. A. S.* Vol. XII. p. 329, and Vol. XIII. p. 1, and to his contributions to Vol. XIII. Pt. II., of the *Bombay Gazetteer*. The history of the Gurjara and Chalukya princes of Gujarât has gained an altogether new aspect, in consequence of his article in the *Indian Antiquary*, Vol. XIII. p. 80, and in the *Verhandlungen des Siebenten Int. Or. Cong.*, *Arische Section*, p. 211. I hold it to be now evident the Gurjara *Sâmantas* of Broach were not an ephemeral dynasty, counting only three kings, but that they ruled over Central Gujarât during four or five centuries. The great difficulties which the Khedâ plates of the Chalukya Vijayarâja used to cause, have disappeared since it has been shown that they belong to a late period when the Dekhan Chalukyas had grown powerful and extended their sway to the western coast. Moreover, it has now become certain that feudatory Chalukya kings ruled in Southern Gujarât for several centuries, down to the conquest of the province by the Râthors. These results are chiefly due to Paṇḍit Bhagvânlâl's discovery that an era, which began in the middle of the third century A.D., was extensively used in Gujarât during the seventh and eighth centuries. He was enabled to furnish convincing proof of this fact, because, fortunately, he had kept a copy of the for the present inaccessible grant of Mangalarâja, the second prince of the Chalukya dynasty of Southern Gujarât, who used the Saka era, while his elder and younger brothers preferred the later one. Sir A. Cunningham and Mr

Fleet then showed that the era in question was the Chedi-Saṁvat used by the Haihayas of Central India, in which identification Pandit Bhagvânlâl acquiesced. His latest attempt to account for the occurrence of the Chêdi era in Gujarât, by the assumption that it was established by the Âbhira king Îśvaradatta, and by the identification of the Âbhîras of Gujarât and Nâsik with the Traikûṭakas and the Haihayas of Chêdi, is for the present nothing more than an ingenious speculation. But his combinations are, though very bold, yet by no means improbable; and it is very likely that his extensive unpublished paper on the Kshatrapas of Western India, which will be published in the *Journal Bo. Br. R. A. S.*, will show them to be well founded. Another work on which he was engaged until his death, is a history of Gujarât from the earliest times until 1300 A.D. In addition to his services to the political history of India, those rendered by him to the history of the religious sects, especially of the Jainas, deserve to be mentioned. Paṇḍit Bhagvânlâl was always a staunch adherent of the theory that the Jainas are an independent community, the latest development of which dates from the times of Buddha. He fully agreed with me on this point when I told him, in 1876, that I had found notices of the *Tîrthaṅkara* Mahâvîra in the Buddhist scriptures. Later he has shown that the Jains were the, or one of the, ruling sects in Kaliṅga during the times of the Chêta dynasty, just as at the period of Hiuen Tsiang's visit; and that the Udayagiri and Hathigumpha inscriptions belong to patrons of the Jainas. He also brought to notice the important Jaina inscription from Mathurâ, which clearly proves the existence of Jaina temples in that city during the first century B.C., and he first recognised that the Kahaum pillar, erected according to its inscription in Gupta-Saṁvat 141 or 460-61 A.D., is a Jaina monument. On the Śaiva and Vaishṇava sects, he has only made occasional remarks. These show distinctly, what he also has often told me in private conversation, that he did not agree with those who consider the religious movements in India to consist of the successive development of what is sometimes called Vedism, Brâhmanism, Buddhism, and Hinduism. He held the view, at which every careful student of the real historical documents must arrive, that the Hindus have not proceeded in so systematic a manner, but that many of the modern creeds existed almost in the same form at the beginning of the historical period of India, and that many currents of religious thought and life have run on side by side since very early times. His papers contain also many valuable notes on the geography of ancient India, and numerous perfectly certain identifications of towns and villages mentioned in the inscriptions. His essays on the antiquities of Supârâ and Padânâ, and on the Paṇḍu Lenâ and the Hathigumpha inscriptions, show that he had directed his attention to archæology, and prove an intimate acquaintance with the various styles of architecture and ornament. The famous discovery of the Supârâ *Stûpa*, which he made together with Dr. J. MacNabb Campbell, will perpetuate his name as that of an able and lucky archæological explorer.

The great services which Paṇḍit Bhagvânlâl rendered to Oriental learning found also further ready recognition. In 1883 the University of Leiden granted to him, on the recommendation of Professor Kern, the honorary degree of Doctor of Philosophy. Shortly afterwards he was made an Honorary Member of the Koninklijk Instituut voor de Taal-, Land- en Volkenkunde van Nederlandsch Indië, and of the Royal Asiatic Society of Great Britain and Ireland. In 1886 the Chiefs of Kâthiâvâḍ originally selected him as the delegate to the Seventh Int. Or. Congress. He was, unfortunately, compelled to decline the offer on account of a very serious illness. Many of the most eminent Orientalists in India and Europe entered into correspondence with him, and honoured him with their friendship. Since, of late years, the annual migrations of European Sanskritists to India became the fashion, his house at Walkêshwar was one of the points of attraction for them in Bombay. All those who visited him, left him full of respect for his learning, and enchanted with the readiness with which he showed his treasures, and gave them advice and assistance in their researches. He, on his part, valued these visits more than any other honour shown to him. Only a few months ago, on January 6th, he wrote to me a warm letter of thanks, expressing his gratitude for my having procured him the pleasure of acquaintance with our illustrious colleague, M. E. Senart. Of my own personal intercourse with him, I have kept the most agreeable remembrances. After his natural shyness and his distrust of Europeans, which, I think, had been implanted artificially, were overcome, he became a most amiable companion, perfectly unreserved and truthful even in matters on which the majority of Hindus find it difficult to speak with full candour. In the autumn of 1876, and again in July and August, 1879, we worked daily from 6 to 9 in the morning—the only time I could spare—at the translation of his papers on the Numerals and the Nepalese Inscriptions. Our work was both times unduly protracted, because very frequently *antarakathâs*, as we used to call our incidental conversations, drew us off from our

man purpose. We used to discuss not only the chief problems and results of antiquarian and literary research, but also the social, political, and religious condition of modern India. In these conversations, I was often struck with the fairness and impartiality of his remarks on men and matters. He never showed any jealousy of the merits of others, but freely acknowledged what was worthy of praise in their work and character: nor did he allow his judgment to be clouded by national vanity. A point which did him great honour was his feeling towards his former master, Dr. Bhâû Dâjî. Though fully conscious of the weaknesses of the latter, he felt for him as only an Indian pupil can feel for his Guru. He was still devoted to him, *tan* and *man*, with the same devotion which he had shown so often during Dr. Bhâû Dâjî's lifetime. On literary, historical, and linguistic questions, we often differed very considerably. His bearing in such discussions was always perfectly self-possessed and gentlemanly. It was not easy to induce him to give up an idea which once had taken root in his mind. But in spite of a great sensitiveness he always openly acknowledged a defeat. Though he had, as was only right and just, a very good opinion of himself, and of the ability of his countrymen, he more than once made the apparently sincerely meant remark, that the Hindus did not possess the same mental strength as the Western nations, and he never found the least difficulty in admitting the fact that their ancestors had borrowed much from the Greeks and other foreigners with whom they came into contact. Of the social, political, and religious life of modern India, especially in the Native States, he gave me more trustworthy accounts than almost any other of my numerous Hindu acquaintances, whose statements were only too often biassed one way or the other. His amiable frank character, his keen intelligence, and his extensive learning, made him very dear to me. I shall never forget the pleasant days, when I used eagerly to look forward to the announcement that the *Panditjî* had come: and I gladly acknowledge now, as I have done already on special occasions, that I have learnt a great deal from him.

His worldly circumstances were unfortunately never very satisfactory. When I made his acquaintance, he was engaged in business with, or was working in the office of, a native merchant in Bombay. I believe he kept this connection up also later, though he was temporarily employed by Dr. Burgess and by Dr. J. M. Campbell, the compiler of the famous *Bombay Gazetteer*. During my stay in India, I repeatedly tried to secure for him a permanent place in the Government service. But I failed, partly because he did not possess a sufficient knowledge of the English language, and partly because his terms were rather high, and he claimed a certain independence in his position. He was, however, by no means quite neglected. Besides the no doubt liberal pay for the work which he did for Drs. Burgess and Campbell, he received generous assistance from the Kâthiâvâḍ Chiefs and other patrons, as well as, on the completion of his inscriptions from Nêpâl, the whole savings, nearly one-half, of the original Government grant of Rs. 2,000. With such occasional help, he seems to have been able to live not uncomfortably, except in the last months of his life, when he became very infirm. In his last letter, dated the 27th January, 1888, he, for the first time, complained of his circumstances. He told me that, after suffering more or less during four years, he had become for the last two months so weak in body as to be unable to leave his bed, and that, though, only 49 years of age, he was quite an old man and unable to work for his livelihood. He asked me, therefore, to apply to the Divân of Junâgaḍh for a pension. I fulfilled his request at once, and the courteous reply of Mr. Haridâs Behâridâs leaves no doubt that Paṇḍit Bhagvânlâl would have received help, if he had not died so soon. In spite of his bodily weakness and his cares, he continued his literary work to the last. In the letter of the 27th January last, he added, after describing his infirmity,—"But my mental power is, on the contrary, good. I have engaged a graduate of the University. Having taught him with great trouble, I make him write [my] articles (*pêpar̃o lakhâvun̄ chhun̄*)." Some time before his death he made a will, bequeathing his coins and copper-plates to the British Museum, his papers and MSS. to the Asiatic Society of Bombay. Mr. Vajeshankar G. Ozhâ of Bhâunagar has informed me that Paṇḍit Bhagvânlâl's admirers in Kâthiâvâḍ intend to raise a fund in order to perpetuate his name by the endowment of a scholarship in connection with the Bombay University. I trust that all European Orientalists will join with his compatriots in order to do honour to the memory of their distinguished colleague who spent his whole life in the pursuit of disinterested scientific work.

G. BÜHLER.

Vienna, May 18th, 1888.

CALCULATION OF HINDU DATES.

No. 18.

In the Kittûr stone inscription of the Kadamba king Jayakêśin III., from the Be-

gaum District, published by me[1] in the *Jour. Bo. Br. R. As. Soc.* Vol. IX. pp. 263, 304ff., the first date (lines 3, 12f.) runs:— Kaliyuga-saṁvatsaraṁ 4289 sand=ad=âdi diy-âgi . . . . . . śrî-Vîra-Jayakêśi-dêv-arasara varshaka(da) 15-neya Dur[ma]ti-saṁvatsarada Âshâḍa(ḍha)-śud[dha]-[dhû]ashṭamî-8-Âdivârad=amdu,—"the Kaliyuga year 4289 (*is the moment*,[2] commencing from that (*point*) . . . .[3] on the first day (*i. e.* on Sunday), the eighth *tithi*, (*or in figures* 8, of the bright fortnight of (the month) Âshâḍha of the Durmati *saṁvatsara*, which is the 15th of the years of the illustrious king Vîra-Jayakêśidêva." And the inscription goes on to record a trial by ordeal, in a dispute about some land, between Śivaśakti, the *Âchârya* of the god Kallêśvara of the well called Attibâvi at Kittûr, and Kalyâṇaśakti, the *Âchârya* of the *Mûlasthâna* god of the same locality.

The above is the date on which the dispute was formally opened for trial. In line 25f. it is recorded that—tat-saṁvatsarada Âshaḍa(ḍha)-bahuḷa-7-saptamî-Âdivârad=adum,[4] *i.e.* "on the first day (Sunday), 7, (*or in words*) the seventh *tithi*, of the dark fortnight of Âshâḍha of that same *saṁvatsara*,"—the ordeal was undergone, Kalyâṇaśakti taking an oath, apparently with some sacred symbol or image on his head,[5] and Śivaśakti taking an oath, with a heated plough-share in his hand.[6] And finally, in line 30f., it is recorded that—â-bahuḷa-8-Sômavâra-d-divasa, *i. e.* "on Monday, the 8th (*tithi*) of that same dark fortnight,"—the adjudicants, *viz.* all the *Mahâjanas* of the neighbouring village of Dêgâṁve, convened in an assembly in the *sabhâmaṇḍapa*, examined Śivaśakti's hand,[7] and, evidently finding it uninjured, decided that he had won his case, and that the land in dispute really belonged to the god Kallêśvara.

This gives us, apparently as the basis of the calculation, Kaliyuga-Saṁvat 4289, which, if it should be taken as expired, is equivalent by the Tables to Śaka-Saṁvat 1110 expired, and the details of the **Durmati saṁvatsara, current,** of the Sixty-Year Cycle of Jupiter; the month Âshâḍha (ordinarily June-July); and (1) the eighth *tithi* of the bright fortnight, coupled with Âdivâra, or **Sunday**; (2) the seventh *tithi* of the dark fortnight, coupled with Âdivâra, or **Sunday**; and (3) the eighth *tithi* of the dark fortnight, coupled with Sômavâra, or **Monday.**

But, if the apparent application of the given Kaliyuga year is accepted, we should have to assume some very considerable error in the record; for the given year, whether it is taken as current, or as expired, does not agree with the name of the *saṁvatsara* according to either the Southern or the Northern System of the Cycle.

Thus, by the Northern System of the Cycle, I find from Mr. Sh. B. Dikshit's Tables that the Durmati *saṁvatsara* commenced in Kaliyuga-Saṁvat 4298 and Śaka-Saṁvat 1119, both current (A.D. 1196-97), on Friday, the 8th November, A.D. 1196; and it was followed by the Dundubhi *saṁvatsara* in Kaliyuga-Saṁvat 4299 and Śaka-Saṁvat 1120, on Tuesday, the 4th November, A.D. 1197. And here, with the basis of Śaka-Saṁvat 1119 expired, from Prof. K. L. Chhatre's Tables I find that the results are,—(1) Âshâḍha śukla 8 ended on Tuesday, the 24th June, A.D. 1197, at about 42 *ghaṭis*, 3 *palas*, after mean sunrise (for Bombay);—by the *Pûrṇimânta* northern arrangement of the lunar fortnights, (2) Âshâḍha kṛishṇa 7 ended on **Sunday,** the 8th June, at about 55 *gh.* 22 *p.*; and (3) Âshâḍha kṛishṇa 8 ended on **Monday,** the 9th June, at about 52 *gh.* 35 *p.*;—and, by the *Amânta* southern arrangement, (2) Âshâḍha kṛishṇa 7 ended on Tuesday, the 8th July, at about 32 *gh.* 56 *p.*, and (3) Âshâḍha kṛishṇa 8 ended on Wednesday, the 9th July, at about 37 *gh.* 8 *p.* Thus, if we could admit the exceptional use in Southern India, at this period, of the Northern System of the Cycle and the *Pûrṇimânta* northern arrangement of the fortnights, the correct week-day is obtained in two cases out of the three; and it might be thought that either the writer or the engraver of the

[1] For a lithograph, see, when issued, *Indian Inscriptions*, No. 33.

[2] Here *sandu* seems to be the noun, meaning 'a fissure, crack, opening; a lane, narrow street; an interval of time;' not the past participle of *sallu*, 'to be current; to pass (as time).' Compare the fuller word *sandarbha*, 'an opportunity; a crisis; an ominous interval of time.'

[3] The intervening passage, in lines 3 to 12, contains only the long string of titles and epithets of Jayakêśin III.

[4] Read *adu*.

[5] In line 21 we have—â Kalyâṇaśakti śira-sthâyi[*]-y-âgi . . . . . . *lit.* "that same Kalyâṇaśakti, having become standing on the head, (*made*) an oath to the following effect." And in line 29f. we have—â [Ka*]lyâṇaśakti Âlakoḷana-keyi Mûlasthâna-dêvarad-e[*]du śira-sthâyiy-âdaṁ *lit.* "that same Kalyâṇaśakti, saying '(this cultivable land named) Âlakoḷana-keyi is the property of the *Mûlasthâna* god,' became standing on the head." The word *śira-sthâyi*, or, in its full Sanskrit form, *śiraḥsthâyin*, can hardly be intended to be taken in its literal sense. But I have not been able to obtain any certain explanation of the meaning that is to be given to it here.

[6] In line 26f. we have—â Śivaśaktigaḷu pâḷa-divyaman hiḍiven endu, "that same Śivaśakti having said 'I will hold the *pâḷa-divya*;'" and in line 27,—â Śivaśakti gaḷu pâḷa-divyaman ... bhashey-ittu ... dare, "that same Śivaśakti, holding the *pâḷa-divya*, made an oath to the following effect." *Pâḷa* is a corruption of the Sanskrit *phâla*, 'a plough-share;' and *phâla-divya* is one of the ten ordeals given by Monier-Williams in his Sanskrit Dictionary, s. v. *divya*, 'an ordeal.'

[7] â Śivaśaktigaḷa kayya[m*] sôdhisi nôḍi; line 31.

inscription simply made a mistake, and transposed the figures 9 and 8, and thus gave Kaliyuga-Samvat 4289, instead of 4298 (as an expired year). But the week-day in the third case, differing by two days, renders it impossible to accept these results and this explanation. And I shall shew that the figures 4289 are really correct: though they have not the application which suggests itself at first sight.

By the Southern System of the Cycle, the Durmati saṁvatsara coincided with Kaliyuga-Samvat 4303 and Śaka-Samvat 1124, both current (A.D. 1201-1202). Here, with the basis of Śaka Saṁvat 1123 expired, **the results, in all three cases, work out quite correctly**; thus—(1) **Âshâḍha sukla 8 ended, as required, on Sunday, the 10th June, A.D. 1201,** at about 52 *gh* 59 *p.*;—and, by the *Amânta* southern arrangement of the fortnights, (2) **Âshâḍha kṛishṇa 7 ended on Sunday, the 24th June,** at about 26 *gh* 37 *p.*; and (3) **Âshâdha kṛishṇa 8 ended on Monday the 25th June,** at about 20 *gh.* 19 *p.*

These results are exactly in accordance with those obtained under Nos. 15, 16, and 17 above. And they shew that, as was in fact to be assumed from the locality and period of the record, **the real guide in calculating the details is the name of the saṁvatsara according to the Southern System of the Cycle.**

It only remains to explain **the apparent discrepancy between the given Kaliyuga year and the saṁvatsara.** As we have seen, the results are correct for Kaliyuga-Saṁvat 4303 current. By the record, the period from Âshâḍha śukla 8 to kṛishṇa 8 of this year, was in the fifteenth year of the reign of Jayakêśin III. Accordingly, the period from Âshâḍha śukla 8 to krishṇa 8 of the first year of his reign, was in Kaliyuga-Samvat 4289 current. And, differing from the way in which it has to be applied in Nos. 15, 16, and 17, **the given Kaliyuga year is evidently here used as giving, not the basis of the computation of the details of the dates, but simply the period from some point in which there commenced the first year of the reign,** of which there is quoted the fifteenth year, with those details referred to it. This is rather an exceptional use of the leading item in a date. But, two exactly analogous instances are furnished by Nos. 19 and 20 below.

We may also note that the similar use of Kaliyuga-Samvat 4288 expired in No. 19, shows that **in the present case we distinctly have the quotation of a current Kaliyuga year.**

No. 19.

The preceding result enables us to deal conveniently with the **Halsi copper-plate grant of the same Kâdamba king Jayakêsin III., from the Belgaum District,** published by me in the *Jour. Bo. Br. R. As. Soc.* Vol. IX. pp. 231 f., 241 ff., in which the date (line 66 ff.) is — sâshṭ-âśîti-śatadvay-âdhikêshu chatursha sahasrêshu Kaliyuga-saṁvatsarêshu parâvṛittêshu śrî-Sapta-kôṭîśvara-labdha-vara-prasâda-śrî-Kâdamba-Vîra-Jayakêśidêva-vijaya-râjyê pravartamânê trayôdaśê Siddhârthi-saṁvatsarê Chaitra-śuddha-dvâdaśî-Guruvârê damanârôpaṇa-samanantaraṁ, —"when there have expired four thousand years of the Kaliyuga, increased by two hundred together with eighty-eight: while there is current the Siddhârthin *saṁvatsara*, which is the thirteenth (*year*) in the victorious reign of the glorious Kâdamba Vîra-Jayakêśideva, who has acquired the excellent favour of (the god) the holy Saptakôṭîśvara: on Thursday, the twelfth *tithi* of the bright fortnight of (the month) Chaitra: immediately after the *damanârôpaṇa* (ceremony)." And the inscription goes on to record a grant of the village of Kiruvalasigâ by Jayakêśin III., in this the thirteenth year of his reign.

This gives us, apparently as the basis of the calculation, Kaliyuga-Samvat 4288 expired, which by the Tables is equivalent to Śaka-Samvat 1109 expired; and the details of **the Siddhârthin saṁvatsara, current,** of the Sixty-Year Cycle; the month Chaitra (ordinarily March-April), the bright fortnight; the twelfth *tithi*; and Guruvâra, or **Thursday.**

But, if the apparent application of the given Kaliyuga year is accepted, here again we should have to assume a very considerable error in the record.

Thus, by the Northern System of the Cycle, the Siddhârthin *saṁvatsara* was current at the commencement of Kaliyuga-Samvat 4297 and Saka-Samvat 1118, both current (A.D. 1195-96).

While, **by the Southern System of the Cycle, the Siddhârthin saṁvatsara** coincided with Kaliyuga-Samvat 4301 and Saka-Samvat 1122 both current (A.D. 1199-1200). As we have seen in the four preceding instances, this is the period for which we must expect to obtain a correct result. And, as the *Mêsha-Saṁkrânti* of Saka-Samvat 1122 current occurred on Thursday, the 2[illegible]th March, A.D. 1199, on which day there ended the twelfth *tithi* of the *dark* fortnight of Chaitra, the calculation has to be made with the basis of Saka-Samvat 1120 expired. With this basis, I find **that the given tithi, Chaitra sukla 12, ended, as required, on Thursday, the 11th March, A.D. 1199,** at about 23 *gh.* 26 *p.*

Here again, as in No. 18 above, we find that **the given Kaliyuga year is used as giving, not the basis of the computation of the details**

of the date, but simply the period from some point in which there commenced the first year of the reign, of which there is quoted the thirteenth year, with those details referred to it. And this record seems to fix the commencement of the reign of Jayakèsin III., as falling on some date between Chaitra sukla 1 and 12 of Kaliyuga-Samvat 4289, equivalent to Śaka-Samvat 1110 current, or between approximately the [illegible] and the 24th March, A. D. 1187

From what I have said above regarding the expired Saka year with which the result had to be calculated, it is clear that, though for purposes of astronomical calculation the *Mêsha-Saṁkrânti* has to be taken as the starting-point in the years of both the eras, this record proves that, for the denotation and computation of tithis according to the civil reckoning, the years of the Kaliyuga era have to be taken, like those of the Saka era, as commencing with Chaitra sukla 1. For otherwise, *i.e.* if Kaliyuga-Samvat [illegible] current had to be taken as not commencing, for civil purposes, till the *Mêsha-Saṁkrânti* which occurred on the 25th March, A.D. 1199, then the given *tithi* would belong to 4360 current, and the record would have given us 4287 expired, instead of 4288 expired. It is also evident that the same starting-point, Chaitra sukla 1, has to be taken as the initial day of each saṁvatsara according to the Southern System of the Cycle, at any rate for the civil reckoning For otherwise the given *tithi* would belong to the preceding *saṁvatsara*, Kâlayukta.

No. 27.

In the Goa copper-plate grant of the Kâdamba king Shashthadèva-Śivachitta or Shashthadèva II., published by me in this Journal, Vol. XIV p. 288ff., the date line 29ff is [illegible]-ashtâchatvâ-[illegible]-adhika-trisat-ottareshu chatuḥ-sahasreshu Kaliyuga-saṁvatsareshu pravṛittèshu satsu sva-[illegible]-bhava-kâle pañchame Sâdhâraṇa-saṁvatsarasya Âśvayuja-suddha-pratipadi Budhavârè [illegible] upagatavati bhagavati bhâskare vishuva-[illegible] mahâ-puṇya-kalè,—"when there [illegible] expired four thousand years of the Kaliyuga, [illegible] by three hundred raised by forty-eight, [illegible] Sadhâraṇa *saṁvatsara*, which is the fifth year in the time of his own enjoyment of sovereignty, on the first *tithi* of the bright fortnight of the month Âśvayuja of that *saṁvatsara*, on Wednesday, when his radiance the [illegible] come to the sign *Tulâ*, at the *saṁkrânti* [illegible] equinox, at this very meritorious time" [illegible] inscription goes on to record a grant of [illegible] made by Shashthadèva II., in this the fifth [illegible]

This gives us, apparently as the basis of the calculation, Kaliyuga-Samvat 4348 expired, which by the Tables is equivalent to Śaka-Samvat 1169 expired; and the details of the **Sâdhâraṇa saṁvatsara, current,** of the Sixty-year Cycle; the month Âśvayuja (ordinarily September-October), the bright fortnight; the first *tithi*; Budhavâra, or **Wednesday**; and **the (autumnal) equinox, occurring at the Tulâ-Saṁkranti** or entrance of the Sun into Libra

But here again, if the apparent application of the given Kaliyuga year is accepted, we should have to assume an error in the record

Thus, by the Northern System of the Cycle, I find that the Sâdharana *saṁvatsara* commenced in Kaliyuga-Samvat 4347 and Saka-Samvat 1168, both current (A D 1245-46), on Sunday, the 16th April, A. D 1245, and the given month and *tithi* fell of course in the same year; the following *saṁvatsara* was Virôdhikṛit, which commenced in Kaliyuga-Samvat 4348 and Śaka-Samvat 1169, on Thursday, the 12th April, A D 1246. Nor is there any possibility of this being the period intended; as might be argued if we assumed that Kaliyuga-Samvat 4348 expired is only a mistake for 4347 current or 4346 expired For, with the basis of Śaka-Samvat 1167 expired, I find that the given *tithi*, Âśvayuja śukla 1, ended, not on a Wednesday, but on Saturday, the 23rd September, A. D. 1245, at about 41 *ghaṭis*, 1[illegible] *palas*, after mean sunrise (for Bombay); five days before the *Tulâ-Saṁkrânti*, which occurred on Thursday, the 28th September, at about 4 *gh* 23 *p*

As in the previous instances, we must apply **the Southern System of the Cycle**; by which **the Sadharaṇa saṁvatsara** coincided with Kaliyuga-Samvat 4352 and Saka-Samvat 1173 both current A. D. 1250-51 And this is the period in which we have to look for a correct result In this year, Âśvayuja was intercalary And,—partly from the absence in the record of any expression indicating the intercalated month, partly because of the general prohibition against the performance of religious rites, &c., in intercalated months,—we should expect to find the details work out correctly for the natural month; *i.e.* according to the present custom of both Northern and Southern India, for the second Âśvayuja. Here, with the basis of Saka-Samvat 1172 expired, the results are—1, in the first, the intercalated month, the given *tithi*, Âśvayuja sukla 1, ended on Monday, the 29th August, A D. 1250, at about 57 *gh* 27 *p.*, thirty days before the *saṁkrânti*, and (2) in the second, the natural month, the given tithi, Âsvayuja sukla 1, ended, as required, on Wednesday, the 28th September,

A.D. 1250, at about 18 *gh.* 10 *p.*; **and the Tulâ-Samkrânti occurred on the same day,** at about 22 *gh.* 1 *p.*

Here again, as in Nos. 18 and 19 above, we **find that the given Kaliyuga year is evidently intended to give, not the basis of the computation of the details of the date, but simply the period from some point in which there commenced the first year of the reign,** of which there is quoted the fifth year, with those details referred to it. But **in this instance there seems to be a mistake, either in the regnal year, or more probably in the Kaliyuga year.** For, by the record, (the natural) Âśvayuja śukla 1 of Kaliyuga-Samvat 4352 current, was in the fifth year of the reign of Shashthadêva II. Consequently, Âśvayuja śukla 1 of the first year of his reign, was in Kaliyuga-Samvat 4348 current. And the given expired Kaliyuga year ought, apparently, to be 4347 instead of 4348.

J. F. FLEET.

ARABIC ORIGIN OF "BOSH."

SIR,—This highly expressive English slang word, though in everyday use by all classes, is omitted in all the dictionaries which I have had an opportunity of consulting, except one. Nuttall, defines it:—"Outline; figure; in *pop. lang.*, nonsense, folly," but he gives no clue to its derivation. In thinking over the origin of the word lately, it occurred to me that many years ago, in reading an English story, the scene of which was laid in Asiatic Turkey, I had seen the word **bosh** frequently used by a Turk, in **Turkish** sentences, and, apparently, in the same sense as in English. I then referred to a Turkish dictionary, in which the word بوش *bôsh* is defined as empty, useless. These meanings, though somewhat unsatisfactory, are not inconsistent with the idea that the word under discussion is borrowed directly from the Turkish language. I shall now endeavour **to trace this Turkish word back to the Arabic.**

Everyone whether acquainted with Arabic or not who has touched at any of the Egyptian ports or Aden must remember hearing the expression مافيش *ma-fish*, which is a contraction of مافي شي *ma fi shai*, and means literally:—"There is not any thing." Both in Yaman and Egypt the expression is frequently used as a simple negation, "not,"—but when used in this sense in the Maghribi, or Egyptian, dialect it is usually corrupted into موش *mûsh*, while in Yaman it remains unaltered. Thus, an Egyptian would say — هذا موش طيب *hâdhâ mûsh taib*, "This is not good;" while a Yamanî Arab would say;—هذا مافيش طيب *hâdhâ mâ-fish ṭayib* or, simply, *hâdhâ mâ ṭâyib*.

While residing in Aden and in the Somâli Country I frequently noticed an interchange in the letters *m* and *b*, especially in proper names. I regret that I did not note examples at the time; but I remember one instance, which occurs in the name "Idrîs 'Umêsh," one of the leading citizens of Zaila' (زيلع). He always signed his name in Arabic characters:—ادريس عميش though he was commonly called in the town: "Idrîs 'Ubêsh." On questioning him and others about this difference, I was informed that both modes of spelling were correct, because *m* and *b* were often considered one and the same letter.

A similar interchange of these letters occurs in the name of the river *Narmadâ*, which, I believe, is always so written in the vernacular languages of India, though better known to Europeans as the *Nerbudda*.

This completes the chain in the somewhat complicated derivation of the popular English word *bosh* from the Arabic *mâ-fish*. I offer the suggestion with some diffidence, and shall be glad to hear the opinions of others on the subject. The derivation here suggested has at least the merit of originality.

J. S. KING.

As to the origin of the word **bosh,** the *New English Dictionary, s. v.*, says "slang or colloquial.—A Turkish word بوش *bôsh*, empty, worthless; the word became current in English from its frequent occurrence in Morier's novel *Ayesha* (1834) which was extremely popular, especially in the Standard Novels Edition, 1846."

Thence the great Dictionary traces its use in the senses of "contemptible nonsense, stuff, trash, foolish talk or opinions" up to the present day. And in the senses of "Stuff and nonsense! humbug!" it says that it was first heard of in Dickens, *Bleak House*, 1852.

Yule, *Anglo-Indian Glossary, s. v.*, says "this is alleged to be taken from the Turkish *bôsh*, signifying 'empty, vain, useless, void of sense, meaning, or utility' (Redhouse's *Dict.*). But we have not been able to trace its history or first appearance in English."

R. C. TEMPLE.

BOOK NOTICE.

PROF. WEBER ON AHALYA AND 'Αχιλλεύς.[1]

On the 10th November 1887, Prof. Weber read before the Royal Prussian Academy of Science a short but suggestive paper on the above subject.

The popular story of **Ahalyâ** is well known. She was Gautama's wife, and was seduced by Indra, who presented himself to her in the form of her husband. Her indignant spouse condemned her under a curse to become a stone till she was touched by Râma's feet. The latter touched the stone with his feet on his way to Viśvâmitra's hermitage. She came to life, and went to heaven after seeing Râma. The early portion of the story, it may be added, is alluded to in Vêdic literature. Professor Weber sets himself to solve the question as to what is the **under-meaning of this legend** of the beloved of Indra, whom he won so basely? A clue, he thinks, may be found in **a legend of the Jainas**, in which she appears in an altogether different connection. She is there classed with Sitâ, Draupadî and other women, who were the cause of mighty wars. Her name appears there as **Ahiṭṭiyâ, Ahilliyâ, Ahiliyâ, Ahilâ**, and **Ahiṇṇikâ.**[2] This leads to the conjecture that **Ahalyâ** may be connected with **Ahanyâ**, and may mean 'clearness,' 'light,' 'Aurora.' Indra, the god of the bright heaven would be therefore simply the 'lover of the light' (*Ahalyâyai jâra*, of the Subrahmaṇya ritual). So also he is called in another variant of the same ritual *svasur jâra*, 'lover of his sister,' i.e. *ushasô jâra*, 'lover of the Aurora.'

Her husband was **Gautama** or Gôtama = [Gomattama (?)] 'very rich in cows,' which may be a reference to the Sun's cows, whose rape is so often referred to in the old myths. Gôtama may therefore be the 'thousand-rayed cow' of the Vêda, *i.e.* either the sun or the moon, and Ahanâ or Ahalyâ would fitly appear as his spouse

If now, instead of using the picturesque expression 'lover of the light,' it were desired to express Indra with the help of a suffix meaning 'longing for,' we should get from *ahan* or *ahar* the forms ***ahanyu**, **aharyu*, **ahalyu*, and the last would **agree** in form with 'Αχιλλεύς, which would therefore appear to signify 'longing for the light,' 'for the day,' or 'for the Aurora.'[3]

There are several points of resemblance between **Indra** and **Achilles**. In the Mahâbhârata, Arjuna or Phalguna was an incarnation (or son) of Indra, and is continually and closely associated with his friend and protector Krishṇa In the Jaina version of the Krishṇa legend, we find that he was vulnerable in the foot, and that it was there that he was struck by the fatal arrow.

Further, neither Krishṇa nor Achilles (both of whom were the greatest heroes in their respective armies) took any share in the fighting of the side on which he appeared The grounds of abstention were different, it is true. Achilles stays away in anger, and finally joins in the combat, while Krishṇa is bound by an agreement to abstain, though he helps the Pâṇḍavas by his advice. Is this symbolic of the slow gradual development of the storm-conflict, whose aim is the recovery of the ravished daylight?

These considerations lead to the discussion as to how much the **Mahâbhârata** owes to **Greek influence,** and to the Homeric poems. We find in it that the **Yavana king Bhagadatta** was an old friend of Yudhishṭhira's father; that the **Yavana king Kasêrumant,** in whose name we seem to see traces of the word *καισαρ*, was killed in battle by Krishṇa; that the mighty **Kâla-Yavana** met the same fate; that the **Yavanas** joined in the battle between the Kurus and the Paṇḍavas, beside the Sakas and the Pahlavas (the last word only dating from the 2nd century A.D): and we cannot doubt that the present text of the Mahâbhârata belongs to a period in which the names of Greeks, Indo-Scythians, and Parthians were well known, and had wide influence.

As evidence regarding the gradual growth of the Mahâbhârata it is of interest to know that Al-Bêrûnî, in his description of the contents of that epic, omits all mention of the first book, the *âdiparvan*, commencing with the *sabhâparvan* as the first.

Prof. Weber winds up this portion of his argument by explaining that the question is a very wide one, and is in no way confined to the Homeric poems, but extends over the whole range of fables, tales, and myths. It is often impossible to say whether India has borrowed or has lent the original legends, and this can only be decided in each particular case on its own merits As regards the **Achilles-Krishṇa** myth, he is unable to give a definite reply one way or another

The author concludes his interesting essay with the text of the Jaina legend in which Ahalyâ is mentioned in connection with other heroines as already pointed out

G. A. GRIERSON

[1] *Ahalyâ*, 'Αχιλλεύς, *und Verwandtes*, Von Albr. Weber.

[2] In mediæval and modern Hindî she is called Ahilâ or Ahilyâ.—G. A. G.

[3] I may mention one thing in connection with Indra's seduction of Ahalyâ She is according to tradition one of the typical sinners saved by Râma, and her typical sin was *âlasya*, 'laziness.' Her laziness consisted in her not observing that, when Indra came disguised as Gautama, *he cast no shadow* This is of course a common property of all Hindû gods, but the fact is significant in its present connection —G. A. G.

THE INSCRIPTIONS OF PIYADASI.

BY É. SENART, MEMBRE DE L'INSTITUT DE FRANCE.

Translated by G. A. Grierson, B.C.S., and revised by the Author.[1]

CHAPTER II.

THE COLUMNAR EDICTS.

UP to the present date we possess five columns (or *lâṭs*) on which are engraved edicts emanating from Piyadasi :—

1.—The one which has been longest known, and which is the most important, is **the Dehlî column,** commonly known as **the Lâṭ of Fîrûz Shâh** (D), because it was that prince who had it removed to Dehlî from its original resting-place. This is the one which bears the most complete set of edicts. It is, I think, most convenient to follow the enumeration of the edicts suggested by General Cunningham, and I shall therefore say that this pillar carries seven edicts inscribed in four groups, on each of its sides. An eighth, engraved below, surrounds the shaft in several lines.[2]

2.—Another pillar exists **at Dehlî,** where it was also transported by Fîrûz (D²). It is the one called by General Cunningham **the Mêraṭh (Mîrat) pillar,** from its original site. It only preserves a short fragment of the 1st edict, the whole of the 2nd and 3rd, and portions of the 4th and 5th. The 6th to 8th edicts are altogether missing from it.

3.—**The Allahâbâd column** (A), comprising edicts I. to VI. Only the two first are complete. One line remains of the 3rd; and of the others, fragments of greater or less extent. It is characterised by the presence of two fragments which we do not find elsewhere, and which are unfortunately in bad condition: one, previously known to Prinsep, has been named by General Cunningham, 'the Queen's edict;' the other, which was reproduced for the first time in the *Corp. Inscr. Indic.* Vol. I. Plate xxii., is addressed to the officers of Kauśâmbi. They form a necessary appendix in our revision of this class of edicts.

The two last columns were discovered in sites at short distances from each other; and each contains the first six edicts :—

4.—One is that **at Radhiah** (R), which General Cunningham prefers to call Lauriya Ararâj.

5.—The other is **the column of Mathiah** (M), which has received in the *Corp. Inscr. Indic.* the name of Lauriya Navandgaṛh.

I do not propose to dilate upon the description and history of these monuments. I could only repeat facts already dealt with by Prinsep and General Cunningham, to which I have referred in a general way in the Introduction. It will be sufficient to recall to mind that **the different texts are essentially identical in all common portions.** I have therefore taken, **as a basis,** the longest and only complete text, that of **the pillar of Fîrûz Shah.** This is the text which I transliterate, giving in foot-notes the variations of the other versions when they differ.[3]

The orthographical or palæographical peculiarities which this set of inscriptions presents to view are not such as to offer any peculiar difficulties in translation. I therefore neglect them here, and shall revert to them when I examine the philological and grammatical questions as a whole. I may add that I have considered myself authorised, by the experience acquired in the minute analysis of the Fourteen Edicts, to pass over in silence irregularities of detail which can lead to no misunderstanding.

---

[1] In former volumes (IX p 282 ff. and X. pp. 83 ff, 180 ff, 209 ff, 269 ff) of this Journal, there have been published extracts from Chapter I of M Senart's very valuable studies of the Piyadasi Inscriptions We now propose publishing translations of his further studies in the same direction, forming the 2nd volume of his Piyadasi Inscriptions For this publication the texts have been revised by him with the assistance of the better facsimiles which have become available since the original French edition was issued For mechanical facsimiles, prepared under the direction of Mr Fleet of the edicts on the Lât of Fîruz Shâh or the Dehlî Siwâlik Pillar and on the Allahâbâd Pillar, see *ante*, Vol XIII. p 304 ff.—EDITORS.

[2] The text of D, and also that of A (see below), seem to have now become, as far as possible, conclusively established by the facsimiles of Mr Fleet from which a reading was published by Prof Bühler *ante*, Vol XIII. p 306.

[3] The transcription in the original character, and the variants, are omitted in this translation. The latter are no longer necessary, now that the text of D is established.

FIRST EDICT.

Prinsep, *J. A. S. B.* 1837, p. 581 (cf. p. 965); Burnouf, *Lotus de la bonne Loi*, p. 654 and ff

TEXT.

1 Dêvânampiyê Piyadasi lâja hêvam âhâ [.] saḍvîsati
2 vasa abhisitêna[1] mê iyam dhammalipi likhâpitâ [.]
3 hidatapâlatê dusampatipâdayê[2] amnata agâyâ dhammakâmatâyâ
4 agâya palîkhâyâ agâya susûsâyâ agêna bhayênâ
5 agêna usâhênâ [.] êsa chu khô[3] mama anusathiyâ
6 dhammâpêkhâ dhammakâmatâ châ suvê suvê vaḍhitâ vaḍhîsati chêvâ [.]
7 pulisâ pi ca mê ukasâ châ gêvayâ[4] châ majhimâ châ anuvidhîyamti
8 sampaṭipâdayamti châ alam chapalam[5] samâdapayitavê hêmêvâ amta
9 mahâmâtâ pi [.] esa pi vidhi yâ iyam[6] dhammêna pâlanâ dhammêna vidhânê
10 dhammêna sukhiyanâ dhammêna gôtîti [.]

NOTES.

1. The sign ⅃ was formerly considered as representing *ḍḍa*; Dr. Kern (*Ind. Stud.* XIV. 394) has rightly identified it as the sign ɖ followed by the mark of the *virâma*. No one will hesitate to read, with him, *saḍvîsati*.

2. I have on a former occasion (I. 232) indicated *en passant* what I believe to be the true derivation of the words *hidata* and *pâlata*. Burnouf (p. 655) identifies them with two adverbs; *idhatra* (with double locative suffix) and *paratra*, "used together, by an abuse of language common to popular dialects, as two neuter nouns." We escape from all the difficulties of such a conjecture,—difficulties on which it is needless to insist,—by taking the two members as abstract nouns, derived by the suffix *tâ* from the words *hida* (*idha*) and *para*. The latter word can even be referred to *pâra*, in allusion to the Buddhist expression *pâram gantum*, 'to cross to the other side.' The two words are here joined in a neuter dvandva, *hidatapâlatam*. A further process of derivation gives us the adjectives *hidatika*, *pâratika*, which we find at Kapur di Giri (X. 22; XIII. 11) as *paratika* (not *paratrika*); the feminine *pâratikâ* in its turn gives an abstract substantive (cf. *Mahavastu*, I. 522) exactly equivalent to our *pâratâ*. *Dusampatipâdayê* is certainly the participle, for °*pâdiyê*, *pâdyam*. This exceptional resolution of *dya* into *daya* is found elsewhere, e.g. *Dhammap.* V. 33, where we have *dunnivârayam* for *dunnivâryam* (cf. in this edict itself *gêvaya* for *grâmya*). Moreover, A. evidently read °*pâdiyê*, for it is thus that we must restore the apparent °*pâdâyê*. As for the sense, it is important to determine the exact shade of meaning. If, with Burnouf, we translate it 'difficult to obtain,' we run the risk of contradicting the general intention of the edict Whenever we come across the verb *patipâdayati*, *sampatipâdayati* in our inscriptions (cf. *e. g.* the detached edicts of Dh. and J.) it has the causal meaning indicated by the form. We must therefore translate 'Happiness here below and happiness in the other world are difficult (*not* to obtain *but*) to provide.' The king does not address himself to his subjects in general, but, as appears from the sequel, to his officers of all ranks, whom he charges with the moral and religious oversight of his people. It is to them, and to the cares of their office that the qualities next enumerated are indispensable. In fact this interpretation exactly agrees with the thought and intention manifested at the end of the VIth (rock) edict, in very analogous terms, and it will be recognised that the conditions indicated, *parîkshâ* 'alertness in oversight,' *bhaya*, 'fear' of the king (cf. edict VIII. below) apply infinitely better to the officials in question, than to subjects in general.

3. The phrase *chu khô* does not indicate, as Burnouf thought, a consequence, 'also, for.' It indicates, as is shewn by the evidence of the synonym *tu khô* (e.g. G. IX. 5, 7) and the various passages where it is employed (e.g. G. IX. 8, 3, below VIII. 9, &c.), a slight opposition, 'but, now.' The conditions of which the king speaks are necessary and difficult to find, *but*, thanks to his instructions, they develop from day to day. It is necessary to read *anusathiyâ* as one word, as an instrumental. With regard to the use of *suvê suvê* in the meaning of 'every day,' 'from day to-day,' cf. *Dhammap.* V. 229.

4. Burnouf's identification of *gêvayâ* with *grâmyâ*, appears to me as certain as it is ingenious

The neighbourhood of the epithets *ukasá* and *majhimá* proves that the word should be taken, not in its etymological, but in its secondary sense of 'low, inferior, lowest.' Analogous examples will be found in the dictionaries, and I add the passage of the *Lal. Vist.* (540, 10), where *grámya* is, in this sense, placed between *hína* and *párthagjanika*. Regarding *anuvidhíyaṁti*, cf. I. 232.

5. There can be no question of dividing the sentence before *alaṁ*, nor is it necessary to change *samádapayitavé*, as proposed by Burnouf. *Samádapéti* is in Buddhist language used in the sense of 'to convert;' the infinitive is governed by *alaṁ*, and the whole phrase forms a development explanatory of *sampaṭipádayaṁti*. From the well-established use of this verb, it follows that *chapalaṁ* cannot be taken as an abstract neuter. It must designate collectively men who are thoughtless, easily lead away (cf. *Dhammap.* V. 33; *chapalaṁ chittaṁ*). It is possible that *anuvidhíyaṁti* and *saṁpaṭipádayaṁti* have as an object *anusathiṁ*, understood from the *anusathiyá* of the preceding sentence; but we shall see below, especially in the detached edicts of Dhauli and of Jaugada, *saṁpaṭipádayati* or *paṭipádayati* employed absolutely; so also we shall find the phrase *dhaṁmánupaṭipattiṁ anupaṭipajati* (below, VIII. 3), but more usually *paṭipajati* or *saṁpaṭipajati* used absolutely. Hence, the translations 'to be, to walk in the good way,' and for the causal, 'to place, to cause to walk in the good way' appear to me to be those which best render the exact meaning of the verb. As regards *héméva*, i.e. *évam éva*, which we meet subsequently in other edicts and also in the detached edicts of Dh. and J., cf. *Hémachandra*, Ed. Pischel, I. 271. The parallel versions prohibit us from supposing, with Burnouf, that anything is missing from the end of the line, to be completed as *aṁta [mas]*; moreover this word would not suit the sense. The text is certainly complete here, but this certainty does not relieve us of any difficulty. If we consider the reading as entirely correct, we must consider *aṁtamahámátá* as a compound signifying officials stationed at the frontiers, and, as a matter of fact, the Vth of the Fourteen Edicts tells us of *mahámátras* charged with the duty of watching the border-populations. It is also natural that Piyadasi, always intent on extending his charitable cares beyond his own kingdom, should expressly mention, after the officials of all ranks of the interior, those whose actions extended beyond (cf. Dh. IInd det. ed.) Nevertheless, I have some doubts about this. The XIIth edict speaks positively of *mahámátras* charged with the oversight of women, and, according to the Vth, the *dharmamahámâtras* had to busy themselves with the domestic affairs of all the members of the royal family. If we only changed *aṁta* into *aṁté*, and the correction is an easy one, we should find an allusion to these 'domestic officials.' The agreement of all the versions in reading *ta* nevertheless compels me to decide in favour of the first interpretation.

6. The phrase *yá iyaṁ* occurs again in the VIIIth edict, l. 7, in the same meaning, *i. e.* as equivalent to the Pali phrase *yad idaṁ* 'to wit.' Although *iyaṁ* is often employed in our inscriptions as a neuter, I do not think that we are obliged to take *yá iyaṁ* as actually identical with *yad idaṁ*. In the two places where it occurs, the first substantive which follows the pronoun is feminine, here *pálaná*, below *dayá*, with which it perhaps agrees. It is more difficult to fix with the necessary accuracy, the precise shade of meaning of the word *vidhi*. The word 'règle' (rule) appears to be the most exact equivalent in French. This translation agrees well with the sense properly given by Burnouf to the *vidhána* which follows.

To sum up, here is the translation which I propose :—

TRANSLATION.

Thus saith the king Piyadasi, dear unto the Dêvas:—In the twenty-seventh year from my coronation did I have this edict engraved. Happiness in this world and in the next is difficult to provide, without (on the part of my officials) an extreme zeal for the Religion, a strict oversight, an extreme obedience, a very lively sense of responsibility, an extreme activity. But, owing to my instructions this care of the Religion and this zeal for the Religion increase and will increase [among them] from day to day. And my officials, superiors, subalterns, and those of middle rank, themselves conform to and also direct [the people] in the Good Way, so as to keep steadfast the fickle-minded; so also, the overseers of the frontier countries. Now the rule is this; government by the Religion, law by the Religion, progress by the Religion, security by the Religion.

SECOND EDICT.

Prinsep, *l.c.*, p. 582 and ff; Burnouf, *l.c.*, p. 666 and ff.

TEXT.

10 Devânaṁpiyê Piyadasi lâjâ
11 hêvaṁ âhâ [.] dhaṁmê sâdhû [.] kiyaṁ[1] chu dhaṁmê ti [.] apâsinavê bahukayânê
12 dayâ dânê sachê sôchayê cha khu[2] [ ] dânê pi mê bahuvidhê daṁnê dupada
13 chatupadêsu pakhivâlichalêsu vividhê mê anugahê katê âpâna
14 dakhinâyê[3] aṁnâni pi cha mê bahûni kayânâni katâni [.] êtâyê mê
15 athâyê iyaṁ dhaṁmalipi likhâpitâ hêvaṁ anupaṭipajaṁtu chilaṁ
16 thitikâ[4] cha hôtûti ti [.] yê cha hêvaṁ saṁpaṭipajîsati sê sukaṭaṁ kachhatiti [.][5]

NOTES.

1. The last facsimile, by Mr. Fleet, gives the reading *kiyaṁ*, not *kâyaṁ*. Even this form I can only analyze as equivalent to *kê iyaṁ*. *Iyaṁ* would be used for the masculine, which is in no way extraordinary in monuments in which the same form is constantly employed both for the feminine and the neuter, and in which the difference between the neuter and the masculine, in the singular, is almost obliterated by the extension of the termination *ê* to the former. This explanation appears to me much more probable than the comparison with the Sanskrit *kiyat*. It is not intended to determine the extension of the dhamma, but to indicate its nature.

2. Burnouf has well explained *apâsinava* in a general way. Only I do not think that we should look upon *âsinava* as a form which is independent of, although synonymous with the ordinary *âsrava*. It would be too isolated, an example, and, moreover, the word is easily explained by a simple mechanical process. *Âsrava* can, in our dialect, become *âsilava* as we have in Pali, *silôka*, *silêsuma*, *silâghati kilêsa*, &c. *Âsilava* can again be changed into *âsinava*, like the Pâli *naṅgala*, *naṅgula*, for the Sanskrit *lâṅgala*, *lâṅgûla* (cf. Kuhn, *Beiträge zur Pâli Grammatik*, p. 44). The versions of Radhiah and Mathiah help us to correct the word *sôchayê* at the end of the sentence. It is necessarily incorrect, and should be *sôchâyê*, i.e. *śauchêyaṁ*, a normal form. The *ti* of these two versions, comes naturally after an enumeration, but its presence is not absolutely necessary. In any case, we cannot, like Burnouf, begin the next sentence with *cha khu*, or even with *iti cha khu*. The latter phrase would be in itself, possible at the beginning of a proposition; but, putting the sandhi of *sôchayê ti* or rather the enclitic form *ti*, which would be inadmissible at the commencement of a sentence, out of the question, the *pi*, which follows *dânê* would no longer be possible after this accumulation of particles. *Cha khu* or *iti cha khu*, finishes and winds up the enumeration: *pi* takes up a new order of ideas; 'Also have I given many alms.'

3. There are two ways of understanding the expression *âpânadâkhinâyê*, if we take *pâna* as representing in Sanskrit *prâṇa*, or if we take it as representing *pâna*. Burnouf decided in favour of the former, 'Des faveurs leur (aux hommes et aux animaux) ont été accordées par moi, jusqu'au présent de l'existence.' Such a manner of speaking appears to me unnatural. The expression '*jusqu'à*,' 'even to' (*â*) leads one rather to contemplate the indication of a favour so particular, so unexpected, that it constitutes a refinement of liberality. I would add that the term *anugaha* does not, in fact, appear to declare so bounden a service as the gift of life, but rather some work of supererogation. But above all, according to the context, the benefit must be applicable both to men and beasts (*dupadachatupadêsu*). Now, we shall see that Piyadasi put certain limits to the slaughter of animals, that he pardoned some men condemned to death but nowhere does he speak of a general abolition of the death-penalty. I hence conclude that the only satisfactory interpretation consists in taking *pâna* in the sense of 'drink,' 'water,' 'even to securing them water;' and that the king alludes to a work which he has several times mentioned with legitimate satisfaction, to the sinking of wells along the road sides (cf. G 1st Edict). We shall see below (VIII. 2-3) with what visible complaisance the king enlarges on this point. This comparison may perhaps even suggest an altogether different

analysis. In this passage, the king boasts of having established many *âpânas*, inns or caravanserais, and *âpâna* can be taken as a word in itself. At the same time, one does not see exactly why the king should mention only this class of benefactions. The former construction has this advantage, that it implies many others, as we should expect from the use of the phrase *vividhê anugahê*. For the meaning of *dakhinâ*, which we propose here, we may perhaps compare *ariyadachhinaé bhavatu*, of the third line of the Wardak inscription (J.R.A.S., xx., 261ff); this, at least, is the reading proposed by Dowson. Unfortunately, the interpretation, and even the deciphering of this monument are too imperfect and too hypothetical, for the comparison to have much weight.

4. With regard to the spelling °*thitikâ* of several versions, compare the analogous orthographies which I have collected in Buddhist Sanskṛit, e. g. *Mahâvastu* I., p. 595. I need scarcely remark that we should read *kâtuti*, the *ti* having been erroneously engraved twice.

5. With regard to *kachhati* being equivalent to *kurishyati*, cf. Vol. I. p. 123 of the original essays.

TRANSLATION.

Thus saith king Piyadasi, dear unto the Dêvas:—The Religion is excellent. But, it will be asked, what is this Religion? [It consists in committing] the least possible ill; [in doing] much good, [in practising] mercy, charity, truth, and also purity of life. Also have I given alms of every kind; amongst men and four-footed beasts, birds and inhabitants of the water have I performed varied benefits, even so far as securing them drinking water; many other meritorious actions have I also done. It is for this purpose that I have had this edict engraved, in order that men may follow it and walk in The Good Way, and in order that it may long remain in existence. He, who will thus act, will do that which is good.

A BUDDHIST STONE-INSCRIPTION FROM GHOSRAWA.

BY PROF. F. KIELHORN, C.I.E.; GÖTTINGEN.

This inscription was discovered in March 1848, by Captain M. Kittoe, in a mound from which the people were then digging bricks, at a village about 7 miles south-east of the town of **Bihâr**, in the Patna district of the Province of Bengal; and it was first edited, with an English translation by Dr. Ballantyne, remarks by Captain Kittoe himself, and a note by Mr. J. W. Laidlay, in the *Journ. Beng. As. Soc.*, Vol. XVII. Part I., pp. 492-501. The exact spelling of the name of the village where the inscription was found, has been somewhat difficult to make out with certainty. In Captain Kittoe's remarks, *l. c.* p. 495, the place is called **'Pesserawa,'** but this must be an error. For, in the Hindî heading of the Sanskṛit text, p. 492, we have **'Gusarâna,'** and in Mr. Laidlay's note, p. 500, **'Gusserawa'** instead; and in the volumes of the *Archæol. Survey of India* and in Sir A. Cunningham's *Ancient Geography of India*, Vol. I., p. 44, as well as in a paper by Mr. A. M. Broadley, which will be mentioned below, the name of the village is given as either **'Ghôsrâwâ'** or **'Ghôsrâwan.** According to information which I owe to Mr. E. H. Walsh and to Mr. Grierson, the name of the place, in all the village-papers etc., is written **घोसरावान**, but it is invariably pronounced **घोसरावाँ**, *i.e.* **Ghôsrâvâm̐.**

The importance of the inscription for the later history of Indian Buddhism was fully recognised by Captain Kittoe, who assigned it to the 9th or 10th century A.D.; and Mr. Laidlay rightly identified some of the places which are mentioned in the inscription. Captain Kittoe removed the slab on which the inscription is, to Bihâr, where he took facsimiles, and returned it afterwards to the village, where he had it fixed in a niche in the outer wall of a modern temple, having first engraved in English on the margin the date of its being recovered and set up (by Captain Kittoe) for preservation on account of Government.[1]

Afterwards, the inscription was prominently referred to by Sir A. Cunningham, in his Reports

[1] According to Sir A. Cunningham, *Archæol. Survey of India*, Vol. XI. p. 172, the slab was still at Ghôsrâwâ in January 1862, with the following words engraved on the margin:—"Recovered and placed here by Captain M. Kittoe on part of Government, March 30, A.D 1848."

for 1861-62 and 1871-72, *Archæol. Survey of India*, Vol. I. p. 38, and Vol. III. p. 120, as [illegible] *Geography of India*, Vol. [illegible] edition and trans- [illegible] references to them, [illegible] the attention [illegible] 'the [illegible] KLI. [illegible] have [illegible] very [illegible] and [illegible] ment [illegible] been [illegible] which it is of [illegible] and [illegible] of it [illegible] I therefore [illegible] from an [illegible] The [illegible] 1' 11" broad [illegible] —The average [illegible] —The [illegible] form class of [illegible] further [illegible] which we [illegible] inscription of [illegible] photolithograph has [illegible] XV. p. 358. This is [illegible] comparison of the [illegible] and the signs for the [illegible] is proved in particular, [illegible] initial *á* in *âchârya*, line 7, and of the conjunct *ry* in *âchârya-varyam*, in line 7, and *audâryam* and *vîryan*, in line 16 (but not in *sthitâr=yaḥ*, in line 11), compared, *e.g.*, with the initial *á* of *âmradvîpa* in line 9 and with the *ry* of *yatir=yataḥ* in line 7, of the Bôdh-Gayâ inscription.[4] Exactly the same alphabet appears to be employed, *e.g.*, in the short Nâlandâ inscription of Gôpâla, of which a photozincograph is given in *Archæol. Survey of India*, Vol. I. p. 15; and a still further development of the same alphabet we have in a short inscription of Mahîpâla, which is in the Bhâr Museum. As regards the present inscription, I may also perhaps draw attention to the forms of the final *t* and *n* (followed by the sign of *virâma*) in *asmât*, line 17, *sakalân*, line 7, and *bhikshûn*, line 9, and to the exceptional denotation of *ttu* by the sign for *tu*, in *sa[illegible]*, line 5, and *kîrtti*, line 13.—The language is Sanskrit, and, except for the opening symbol representing *ôm*, the inscription is in verse throughout. In line 6 we find the wrong form *abhyupêtum* (for *abhyupaitum*), which is also met with elsewhere; otherwise the grammar calls for no particular remark. As regards lexicography, I would point out that the *kîrti* has in line 17 been employed in the sense of 'an edifice' or a temple,' a meaning which has been assigned to the word *kîrti* by Hêmachandra. —As regards **orthography**, *v* has throughout been used for *b*, instead of *anusvâra* the dental *n* has been employed before the dental sibilant, and the guttural *ṅ* before the palatal sibilant, in *s[illegible]*, line 1, *[illegible]*, line 18, *vaṅśa*, line 4, and *vaṅśam*, line 17; and the rules of *sandhi* have been neglected in *bhikshûn śri-*, line 9, and in *samcitêna*, line 12, and *êtam=vilaya*, line 17.

The inscription is a **Buddhist inscription**, and it records (line 14) the erection, probably at the place where the stone containing the inscription was found, of an edifice for a *vajrâsana* or diamond-throne,[5] by a personage named Vîradêva, an account of which takes up by far the greater part of this record. Vîradêva, the

[illegible] has [illegible] to [illegible] by [illegible] below the [illegible] given by Mr Bradley [illegible] for [illegible] that for [illegible] that the inscrip-tion, in line 7, has *achârya* (instead of *âchârya*) and induced Dr Bhandarkar to put a sign of interrogation after the words *audâryam* and *vîryan* in line 16. In Dr. Bhandarkar's impression the words *âchârya-varya* in line 7 were illegible, and Dr. Râjendralâl has *prâptô ya[illegible]* instead.

[4] See *ante*, Vol XV. p. 357.

son of Indragupta and his wife [illegible], was born in a noble Brahmanical family, at Nagarahâra (in the Jalâlâbâd valley) in Uttarâpatha (or Northern India). Anxious to follow the teaching of Buddha, he went, after he had studied the Vêdas and the Sâstras, to the great Kanishka vihâra (in the neighbourhood of the modern Pêshawar), where he became the disciple of the teacher Sarvajñaśânti, and, as it appears, formally embraced the Buddhist faith. He subsequently visited the diamond-throne at Mahâbôdhi (or Bodh-Gayâ), and from there went to a vihâra, called Yaśôvarmapura ('the town of Yaśôvarman') where he stayed for a long time, enjoying the patronage of the king Dêvapâla. Vîradêva erected two *chaityas* on the hill Indraśaila (or Giryêk, about 5 miles south-west of Ghôsrâwâ); and he was elected by the *saṁgha*, or assembly of monks, probably in succession to a monk named Satyabôdhi, to preside over the monasteries at Nâlandâ (the modern Baragaon, about 9 miles west of Ghôsrâwâ).—It is hardly necessary to say that, with the exception of Yaśôvarmapura, which by Sir A. Cunningham has been identified with the town of Bihâr, but which may be an older name of Ghôsrâwâ itself, all the places mentioned here are well known from the records of the Chinese pilgrims. Nor need I point out what valuable proof is furnished by the above short narrative, in support of the fact that Buddhism was still flourishing in the famous localities mentioned, when this inscription was composed.

Unfortunately, the inscription is not dated, and we therefore are left to determine its age approximately from the characters in which it is written, and from the statement contained in it, that Vîradêva was patronised by king Dêvapâla. The test of the characters is, in many instances, a vague one; and though there can be no doubt that the Dêvapâla spoken of is the Pala king of that name, one of the more immediate successors of the [illegible] of whom we have a short inscription at N[illegible], the chronology of the earlier rulers of the Pala dynasty is still so doubtful that even a seemingly favourable statement like the present [illegible] on the [illegible] number, in the present instance, leads to no very satisfactory result. I therefore need only repeat here, what has been stated already by Captain Kittoe, that our inscription was probably composed some time between the middle of the 9th and the middle of the 10th centuries A.D. Judging merely from the characters, the forms of which appear to me considerably earlier than those of an inscription of Mahîpâla, of which I have an impression before me, I would assign it to the latter half of the 9th century, while the latest researches by Dr. Hoernle[6] on the chronology of the Pala dynasty would rather bring it down to about the middle of the 10th century. I do not think that the inscription can possibly be later

TEXT.[7]

Ôṁ[8]

1 Śrîmân[9]=asau jayati sat[t*]va-hita-pravṛitta-san-mânas-âdhigata-tat[t*]va-nayô Munîndraḥ | klêś-ârṇavam durita-nakra-[illegible]-âsad-ântaḥ saṁsâ[illegible]ra-sâgara-samutta-

2 raṇ-aika-sêtuḥ || Asy[10]=âsmad-guravô va(ba)bhûvur=ava(ba)lâḥ sambhûya hartuṁ manaḥ k[illegible] lajjâ yadi kêvalô na va(ba)lavân=asmi trilôka-prabhau | ity=âlôchayat=ê-

3 va Mânasabhuvâ yô dûratô varjitaḥ śrîmân=viśvam=aśêsham=êtad=avatâd=Vô(bô)dha-[illegible] Sa-vajrâsanaḥ || Asty[11]=**Uttarâpatha**-vibhûshaṇa-bhûta-bhûmir=dêś-ôttamô **Na-**

4 **garahâra** iti [illegible] | tatra dvijâtir=udit-ôdita-vaṁśa(ṁśa)-janmâ nâmnâ=Îndragupta [illegible] râja-sakhô va(ba)bhûva || Rajj[illegible]kaya dvija-varaḥ sa guṇî gṛi-

5 hiṇyâ yuktô [illegible] kalaya [illegible]malayâ ya[12]th=ênduḥ | lôkaḥ pativrata-kathâ-paribhâvanâsu saṁkîrttanaṁ prathamam=êva karôti yasyâḥ || Tâbhyâm=ajâ-

6 yata sutaḥ sutarâṁ vivêkî yô vâ(bâ)la êva kalitaḥ para-lôka-vu(bu)ddhyâ | sarvv-ôpabhôga-subhagê=pi gṛihê viraktaḥ [pravra]jyayâ Sugata-śâsanam=abhyupê(pai)-

---

[6] See *ante*, Vol. XIV. p. 164. The Devapâla of the [illegible] inscription mentioned on p. 165 and re-discovered at [illegible], is, in my opinion, not the Devapâla of the Pala dynasty, and his date, Vikrama-Samvat 1305 (not 1025), is therefore useless for the chronology of that dynasty.

[7] From the impression.

[8] Expressed by a symbol.

[9] Metre, Vasantatilakâ.

[10] Metre, Śârdûlavikrîdita.

[11] Metre, Vasantatilakâ; and of the next four verses.

[12] This *akshara*, *ya*, was originally omitted, and is engraved below the line.

7 tuṁ ‖ Vêdân=adhîtya sakalân kṛita-śâstra-chintaḥ śrîmat-**Kanishkam**=upagamya **mahâ-vihâraṁ**[13] । âchârya-varyam=atha sa praśama-praśasyaṁ Sarvvajñaśântim=anugamya

8 tapaś=chachâra ‖ Sô=yaṁ viśuddha-guṇa-sambhṛita-bhûri-kîrttêḥ śishyô snurûpa-guṇa-śîla-yaśô-bhirâmaḥ । vâ(bâ)lêndu-vat=kali-kalaṅka-vimukta-kântir=vandyaḥ

9 sadâ muni-janair=api Vîradêvaḥ ‖ Vajrâsanaṁ[14] vanditum=êkadâ stha śrîman-**Mahâvô(bô)dhim**=upâgatô ssau । drashṭuṁ ta[t]ô sgât=sahadêś[i][15]-bhikshûn śrîmad-**Yaśôvarmma-**

10 **puraṁ vihâraṁ** ‖ Tishṭhann[16]=ath=êha suchiraṁ pratipatti-sâraḥ śrî-**Dêva**[17]**pâla**-bhuvanâdhipa-lavdha(bdha)-pûjaḥ । prâpta-prabhaḥ pratidin-ôdaya pûrit-âśaḥ pûsh=êva dârita-

11 tamaḥ-prasarô rarâja ‖ Bhikshôr[18]=âtma-samaḥ suhṛid=bhuja iva śrî-Satya-vô(bô)dhêr=nijô **Nâlandâ**-paripâlanâya niyataḥ saṅgha-sthitêr=yaḥ sthitaḥ । yên=aitau sphu-

12 tam=**Indraśaila**-mukuṭa-śrî-chaitya-chûḍâmaṇî śrâmaṇya-vrata-sam(ṁ)vṛitêna jagataḥ śrêyô-rtham=utthâpitau ‖ **Nâlandayâ** cha paripâlitay=êha satyâ śrîma-

13 d-vihâra-parihâra-vibhûshit-âṅgyâ । udbhâsitô=pi va(ba)hu-kîrtti-vadhû-patitvê yaḥ sâdhu sâdhur=iti sâdhu-janaiḥ praśastaḥ ‖ Chintâ-jvaraṁ śamayatâ srtta-jana-

14 sya dṛishṭyâ Dhanvantarêr=api hi yêna hataḥ prabhâvaḥ । yaś=ch=êpsit-ârtha-paripûrṇṇa-manôrathêna lôkêna kalpataru-tulyatayâ gṛihîtaḥ ‖ Tên=aitad=a-

15 tra kṛitam=âtma-manô-vad=uchchair=vajrâsanasya bhavanaṁ bhuvan-ôttamasya । saṁjâyatê yad=abhivîkshya vimânagânâṁ Kailâsa-Mandara-mahîdhara-śṛiṅga-śaṅkâ ‖ Sarvva-

16 sv[20]-ôpanayêna sat[t*]va-suhṛidâm=audâryam=abhyasyatâ samvô(mbô)dhau vihita-spṛihaṁ saha guṇair=visparddhi vîryan=tathâ । atrasthêna nijê nijâv=iha vṛi(bṛi)hat-puṇy-âdhikârê

17 sthitê yêna svêna yaśô-dhvajêna ghaṭitau vaṅśâ(ṁśâ)v=**Udîchîpathê** ‖ Sôpâna-[21] mârgam=iva mukti-p[uras]ya kîrttim=êtâm(ṁ)=vidhâya kuśalaṁ=yad=upâttam=asmât ।

18 kṛitv=âditaḥ sa-pitaraṁ guru-vargam=asya samvô(mbô)dhim=êtu jana-râśir=aśêsha êva ‖ Yâvat[22]=kûrmmô jaladhi-valayâṁ bhûta-dhâtrîṁ vi(bi)bhartti dhvânta-dhvansî(ṁsî)

19 tapati tapanô yâvad=êv=ôgra-raśmiḥ । snigdh-âlôkâḥ śiśira-mahasâ yâmavatyaś=cha-yâvat=tâvat=kîrttir=jayatu bhuvanê Vîradêvasya śubhrâ ‖ ‖

TRANSLATION.

Ôṁ !

(Line 1).—Triumphant is that glorious chief of sages (Buddha), who with his excellent mind, striving for the welfare of the beings, found out the system of truth; (*and who*), to those whose nature is affliction, (*is*) the one bridge for crossing the ocean of worldly existence, (*a bridge*) the ends of which are difficult of approach for (*those*) alligators—evils!

(L. 2).—May the glorious (*Buddha*), who has his diamond-throne by the Bôdhi tree,[23] protect this whole universe!—he, from whom the mind-born (Mâra) drew far aloof, thinking, as it were, that if his betters had, united, been powerless to captivate the mind of (*Buddha*), why need *he* blush for failing in strength, single-handed, against the Lord of the three worlds[24]!

(L. 3).—There is an excellent country, known

[13] The two *aksharas vihâ* were originally omitted and are engraved below the line.

[14] Metre, Indravajrâ.

[15] Perhaps the sign for *i* has been struck out, so that the *akshara* would be *sa*, not *si*.

[16] Metre, Vasantatilakâ. [17] Originally *Dêvâpâla*.

[18] Metre, Śârdûlavikrîḍita.

[19] Metre Vasantatilakâ; and of the next two verses.

[20] Metre, Śârdûlavikrîḍita.

[21] Metre, Vasantatilakâ. [22] Metre, Mandâkrântâ.

[23] See Beal, *Si-yu-ki*, Vol. II. p. 115: 'In the middle of the enclosure surrounding the *Bôdhi* tree is the diamond throne (*Vajrâsana*) . . . It is composed of diamond . . . On this the thousand Buddhas of the Bhadra-kalpa have sat and entered the diamond *Samâdhi*; hence the name of the diamond throne. It is the place where the Buddhas attain the holy path.'

[24] See, *e.g.*, the opening verses of the *Nâgânanda*. Boyd's Translation, pp 1 and 2.

J. F. FLEET, BO. C.S.

SCALE ·38.

W. GRIGGS, PHOTO-LITH.

by the name of **Nagarahâra,**[25] the land of which is an ornament to **Uttarâpatha** (the northern region). There, in a family which had risen higher and higher, was born a twice-born, Indragupta by name, a friend of the king.

(L. 4).—As the moon with its spotless digit, so shone that meritorious distinguished twice-born, united with his wife Rajj[ê]kâ, of whom people make mention in the very first place, when they ponder on tales of devotion to husbands.

(L. 5).—To them was born a son, highly endowed with discernment, who, even as a child, was filled with thoughts concerning the other world. He gave up his attachment to his home, though it was blessed with every enjoyment, in order that, by going forth as an ascetic, he might adopt the teaching of Sugata.

(L. 7).—Having studied all the Vêdas (*and*) reflected on the Śâstras, (*and*) having gone to the glorious great **Kanishka vihâra,**[26] he then, following the excellent teacher Sarvajñaśânti,[27] (*who was*) praiseworthy for his quiescence, gave himself up to asceticism.

(L. 8.)—This Vîradêva, (*being*) thus the disciple of one who by his pure qualities had accumulated great fame, (*and*) pleasing by the fame of corresponding qualities and natural disposition, (*was*) always, like the new-moon, an object of adoration, even to sages, inasmuch as his loveliness was free from the stain of the Kali-age.

(L. 9).—To adore the diamond-throne, he then once visited the glorious **Mahâbôdhi.**[28] From there he went to see the monks of his native country,[29] to **the vihâra**, the glorious **Yaśôvarmapura.**[30]

(L. 10).—Then staying here for a long time, he, the quintessence of intelligence, being treated with reverence by the lord of the earth, the illustrious **Dêvapâla,** shone like the sun, endowed with splendour, filling the quarters with his daily rising, (*and*) dispelling the spread of darkness.

(L. 11).—He who, (*being*) a friend (*dear*) like his own self, being as it were the own arm of the holy monk Satyabôdhi,[31] by the decree of the assembly of monks (*saṅgha*) was permanently appointed to govern **Nâlandâ**; (*and*) by whom, engaged in the vow of a *Śramaṇa*, there were erected for the welfare of the world these two holy *chaityas*, clearly two crest-jewels in the diadem of **Indraśaila**;[32]—

(L. 12).—And who, on becoming the lord of the lady Great Fame, graced though he already was here by **Nâlandâ**, governed (*by and*) true (*to him and*) decorated by a ring[33] of famous *vihâras*, was well praised by good people as a good man;—

(L. 13).—Who, by (*his mere*) sight allaying the fever of anxiety of people in distress, verily eclipsed the power of even Dhanvantari,[34] and whom people, whose wishes he fulfilled by (*granting to them*) the objects desired, took to be equable to the tree of paradise,—

(L. 14).—He erected here for the diamond-throne, the best thing in the world, this habitation, lofty like his own mind, the sight of which causes those moving in celestial cars to suspect it to be a peak of the mountain Kailâsa or of Mandara.

(L. 15).—Practising the generosity of those who are friends of the beings, by offering up his all, as well as manliness, eagerly directed towards the attainment of perfect wisdom and

---

[25] In the immediate vicinity of Jalâlâbâd. See Cunningham, *Ancient Geography of India*, Vol. I. p. 43: Beal, *Si-yu-ki*, Vol. I. p. 91.

[26] The *Saṅghârâma*, which was built by king Kanishka in the neighbourhood of the modern Pêshâwar. See Beal, *l. c.*, Vol. I. pp. 103 and 109.

[27] I cannot understand why this word should not have been taken as a proper name in the previous translations. Compare such names as *Buddhaśânti*, *Ratnâkaraśânti*, *Dharmâkaraśânti*, mentioned by Târanâtha.

[28] *i. e.* either the great Bôdhi tree, or the Mahâbôdhi *saṅghârâma* at Gayâ, or Bôdh-Gayâ itself. See Beal, *l. c.*, Vol. I. Introduction, p. x: Vol. II. p. 133: *Journ. Beng. As. Soc.*, Vol. XVII. Part I. p. 498: and *Archæol. Survey of India*, Vol. XI. p. 141, and Vol. XV. Preface, p. III.

[29] I am not quite sure that this is the right meaning of the word *sahadêśa* (or, possibly, *svadêśa*) of the original.

[30] Comparing the passage in line 7 *śrîmat-Kanishkam . . . mahâvihâram*, I ought perhaps to translate 'the glorious *vihâra*, (called) Yaśôvarmapura,' although the word *śrîmat* is prefixed to *Yaśôvarmapuram*. I am aware that Sir A. Cunningham has identified Yaśôvarmapura with the present town of Bihâr (see *Archæol. Survey of India*, Vol. III. p. 120 and p. 135: and also Vol. VIII. p. 76), and it would be very tempting to take *vihâra*, in the above passage, as a proper name and to translate: 'From there he went . . to Bihâr, the town of the glorious Yaśôvarman.' I nevertheless believe that the word has been used in its ordinary sense, and that Yaśôvarmapura was the name of the *vihâra* visited by Vîradêva. I do not deny that Yaśôvarmapura *may* have been a name of Bihâr; but I consider it equally possible that it may have been the name of the very Ghosrâwâ, where the inscription has been found.

[31] The beginning of the verse might also be translated 'He who, (*being*) *dear* to the monks like their own selves (*and being*), as it were, the own arm of the holy Satyabôdhi.' Satyabôdhi may have been Vîradêva's predecessor at Nâlandâ.

[32] Nâlandâ has by Sir A. Cunningham been shown to be the modern Baragaon, and Indraśaila identified with the hill Giryêk.—*Ancient Geography of India*, Vol. I. p. 469.

[33] The dictionaries do not give this word *parikhâ*; but ...

[34] The physician of the ...

vying with (*his other*) excellencies, residing here, while his high holy office was continuing, he hoisted the banner of his fame on the two poles[35] (*of his family*) in **Udîchîpatha** (the northern region).

(L. 17).—Whatever merit has been acquired by the erection of this edifice,[36] (*which is*), as it were, a staircase to the city of salvation, may through that the whole assemblage of men, headed by the circle of his elders (*and*) including his parents, attain to perfect wisdom!

(L. 18).—As long as the tortoise bears the ocean-girded mother of all beings; as long as the sun with its fierce rays is shining, dispelling the darkness; as long as the nights present a pleasing appearance with the cool-splendoured (moon);—so long may the bright fame of Vîradêva be triumphant in the world.

THE TWELVE-YEAR CYCLE OF JUPITER.

BY SHANKAR BALKRISHNA DIKSHIT; BOMBAY EDUCATIONAL DEPARTMENT.

(*Concluded from p. 7.*)

In the preceding remarks, my object has been to explain concisely the system of the Twelve-Year Cycle of Jupiter that is based on his heliacal risings; and the three methods for determining the *nakshatra* with which the heliacal rising takes place. I have now to make a few **observations of a more general kind;** and to introduce the other authorities of which I have spoken at page 2 above. Before doing so, however, I must refer more fully to another system, which also has been incidentally mentioned, of naming the *saṁvatsaras* of the Twelve-Year Cycle according to Jupiter's passage from one sign of the zodiac into another, with reference to his mean longitude.

The rule for that which I have named **the mean-sign system,** is thus given by the first Âryabhaṭa[1] in his *Ârya-Siddhânta* or *Âryabhaṭîya*, Kâlakriyâpâda, verse 4, — Guru-bhagaṇâ râśi-guṇâs tv=Âśvayuj-âdyâ Gurôr abdâḥ — "the revolutions of Jupiter, multiplied by the signs (twelve), (*are*) the years of Jupiter, the first of which is Âśvayuja." And it is given, in very similar words, by Brahmagupta, in his *Brahma-Siddhânta*, adhyâya xiii. verse 42, — Guru-varshâṇy=Âśvayujâd dvâdaśa-guṇitâ Gurôr bhagaṇâḥ. In this rule, the revolutions (*bhagaṇa*) are meant to be taken from the beginning of the Kalpa, or of a Mahâyuga. But, for practical purposes, we need not go back so far. One Twelve-Year Cycle is completed in one revolution. And, therefore, we can determine the *saṁvatsara* for a given year, or for any given date in it, by taking Jupiter's signs, including the current sign, of the current revolution, and counting from Âśvayuja. In this system, the signs are intended to be taken, and in practice are taken, according to Jupiter's mean longitude. Now, suppose that on a certain day Jupiter's mean

---

[35] *[illegible]*, 'two poles,' or the two families (of his father and mother).

[36] According to Hêmachandra's *Anêkârthasaṁgraha* the word *kîrti* also means 'a palace' or 'temple' (*prâsâdê = kîrtanê*), and this clearly is the sense in which it has been employed here. *Kuśala*, according to the lexicographers, also is synonymous with *puṇya*.

[1] There are two distinct and separate works, each bearing the name of Âryabhaṭa as its author. The one published by Dr. Kern contains one hundred and eighteen verses in the Âryâ metre, and is called *Âryabhaṭîya* in general and by the author himself; but it may, and justly so, be called *Ârya-Siddhânta*; and it is called so by many Hindu astronomers. The date of this work is Śaka-Saṁvat 421 expired (A.D. 499-500). The other, which, I believe, has not yet been printed, contains about six hundred and twenty-five verses in the Âryâ metre, divided into eighteen chapters. This is the work that is usually called the *Laghu-Ârya-Siddhânta*. The date of it is not given. But, from internal evidence, I find that it [illegible] than the *Brahma-Siddhânta* of Brahmagupta [illegible] ex[illegible]; A.D. 628-29); and there is a [illegible]*a-Siromaṇi* (Śaka-Saṁvat 1072 expired; A.D. 1150-51). Its date, therefore, lies somewhere between these two limits. In the first verse of it, the author calls himself Âryabhaṭa: and his work, a Siddhânta, without *Laghu* or any other epithet. In a manuscript copy of it, I find that it is named *Mahâ-Siddhânta* at the end of some chapters, and *Laghu-Ârya-Siddhânta* at the end of others. For the sake of distinction and convenience, it is better to call the authors of these two works, the first and the second Âryabhaṭa. The numbers of the revolutions of the planets, &c. given, as belonging to the *Ârya-Siddhânta*, in the Rev. E. Burgess' Translation of the *Sûrya-Siddhânta*, and in some instances those given by Prinsep (*Prinsep's Essays*, Vol. II Useful Tables, p. 153) as belonging to the same authority, belong really to the second Âryabhaṭa. Probably, when these gentlemen wrote, they had not themselves seen the Siddhânta of the first Âryabhaṭa. Gen. Sir A. Cunningham, also, was not, it seems, aware of the two different Âryabhaṭas, when he wrote (*Indian Eras*, p. 83) "according to Warren the number of days assigned by Âryabhata to a Mahâyuga of 4,320,000 years is 1,577,917,500 in the south of India and 42 more in the MSS. preserved in Bengal." Of these two numbers, the former belongs to the first, and the latter to the second Âryabhata.

longitude is 9 signs and 12 degrees; *i.e.* that he is in the tenth sign. Then, counting from Âśvayuja, we have Âshâḍha, as the current *saṁvatsara* for the given day.[2]

The names of the *saṁvatsaras* of **the Sixty-Year Cycle,** also, — according to that which is usually called the northern system, but which is, in reality, the only truly astronomical system of it, and was current, as is shewn by many epigraphical quotations of it, in Southern India also,—are determined by Jupiter's mean place. And the rule is thus given in the *Sûrya-Siddhânta*, i. 55,—dvâdaśa-ghnâ Gurôr yâta-bhagaṇâ vartamânakaiḥ । râśibhiḥ sahitâḥ śuddhâḥ shashṭyâ syur Vijay-âdayaḥ ॥—"the expired revolutions of Jupiter, multiplied by twelve, (*then*) increased by the current signs (*of the current revolution*), (*and then*) divided by sixty, are (*i.e.* the remainder is) (*the saṁvatsaras counted from*) Vijaya as the first." In fact, the Sixty-Year Cycle, and the Twelve-Year Cycle of the mean-sign system, are quite identical with regard to the day of the commencement of each *saṁvatsara*; and, consequently, with regard also to its duration, which, according to Jupiter's mean motion as given in the *Sûrya-Siddhânta*, is 361 *days*, 1 *ghaṭî*, 36 *palas*. The Twelve-Year Cycle of the mean-sign system, therefore, with regard to its other details, may be most properly described with the Sixty-Year Cycle, which I shall treat of fully on a separate occasion. And I have introduced the present brief mention of it, only because references to it are unavoidable in the following observations.

The **other authorities** for the heliacal-rising system, in addition to the *Bṛihat-Saṁhitâ*, of which I have spoken, are as follows;—(1) **Parâśara** says—Kṛittikâ-Rôhiṇîsh=ûditê kshuch-chhastr-âgni-vṛishṭi - vyâdhi - prâbalyaṁ . . . . . Chitrâ-Svâtyôr uditê nṛipa-sasya-varsha-kshêm-ârôgya karaḥ.—(2) **Garga** says —pravâs-ântê saḥ=arkshêṇa hy=uditô yuga-pach charêt । tasmât kâlâd ṛiksha-pûrvô Gurôr abdaḥ pravartatê ॥—(3) **Kaśyapa** says — saṁvatsara-yugê ch=aiva shashṭy-abdê[3]=ṅgirasas sutaḥ । yan-nakshatr-ôdayaṁ kuryât tat-saṁjñaṁ vatsaraṁ viduḥ ॥—(4) **Ṛishiputra** says —yasmin tishṭhati nakshatrê saha yêna pravardhatê । saṁvatsaras sa vijñêyas tan-nakshatr-âbhidhânakaḥ ॥—(5) Also, in the following, Ṛishiputra quotes **Vasishṭha and Atri,** in addition to Parâśara, who is separately referred to above,—Tishy-âdika-yugaṁ prâhur Vasishṭh-Âtri-Parâśarâḥ । Bṛihaspatês tu Saumy-ântaṁ sadâ dvâdaśa-vârshikaṁ ॥ Udêti yasmin mâsê tu pravâs-ôpagatô=ṅgirâḥ । tasmât saṁvatsaraḥ —(6) In the **Samâsa-Saṁhitâ,** a short work by Varâhamihira, we have[4]—Gurur udayati nakshatrê yasmin tat-saṁjñitâni varshâṇi.—(7) **Bṛihaspati,** as quoted in the *Kiraṇâvali*, a commentary by Dâdâbhâî on the *Sûrya-Siddhânta*, says :— yadâ Gur-ûdayô bhânôr Gurôr abdas tad-âditaḥ. — (8) In the **Nârada-Saṁhitâ,** Guruchârâdhyâya, we have — yad-dhishṇy-âbhyuditô Jîvas· tan-nakshatr-âhva-vatsaraḥ. — (9) In the **Muhûrta-Tattva,** Guruchâra, verse 7, we have — dvy-ṛikshô= Gnêḥ Kârttikât try-riksha ishu-ravi-Śivô= bdaḥ sa yên=ôdit=Êjyaḥ.—(10) In the **Jyôtishadarpaṇa,** adhyâya v., we have — yasminn abhyuditô Jîvas tan-nakshatrasya vatsaraḥ.—It is unnecessary to translate these ten quotations; as the general purport of all of them is the same; *viz.* that "a *saṁvatsara* is to be named after that *nakshatra* in which Jupiter attains his rising." — (11) In the remaining authority, the **Sûrya-Siddhânta,** the rule

[2] In his treatment of the Twelve-Year Cycle (*Indian Eras*, p. 26 ff.), Gen. Sir A. Cunningham opens the subject by quoting Kern's translation (see page 1 above, note 1) of the same verse in the *Bṛihat-Saṁhitâ* which I use for the same purpose. But, for the rest, he altogether ignores the force of the reference to Jupiter's rising, and treats the subject as if the heliacal-rising system, described by me, did not exist at all. What he has deduced from the verse, is only the mean-sign system, which the verse does not really refer to at all: and in respect of which he is wrong in making the *saṁvatsaras* of both the Twelve-Year and the Sixty-Year Cycle, begin and end with the luni-solar years. The rules that he applies give, at the best, only the *saṁvatsaras* of the Twelve-Year Cycle by the mean-sign system, and of the Sixty-Year Cycle, that are current at the commencement of a given solar year: they do not provide for the essential point in both the cycles, *viz.* the determination of the exact day on which a given *saṁvatsara* of either cycle commences — I have not had an opportunity of seeing the writings of Davis and Warren on this subject. But, with all due deference, I may safely say that the Twelve-Year Cycle by the heliacal-rising system, has hitherto remained quite unknown to European scholars. —I would take this opportunity of remarking that I can find no authority for the introduction, in Kern's translation, of the bracketed words "(during which Jupiter completes a twelfth part of his revolution). Jupiter completes a twelfth part (*râśi*) of his revolution in about three hundred and sixty-one days; while the interval between two of his heliacal risings is about four hundred days

[3] From this, it appears that the *saṁvatsaras* of the Sixty-Year Cycle also, were originally determined by the heliacal risings of the planet. And corroboration of this is afforded by a verse of Varâhamihira, quoted further on The above verse of Kaśyapa, evidently applies to the Twelve-Year Cycle also.

[4] I have taken this, and the preceding five quotations, from Utpala's commentary on the *Bṛihat-Saṁhitâ.*

appears to be a little different from that of all the other authorities; though the general features are the same. And, for this reason, though the work is one of the earliest, I have quoted it last. The rule is given in the verse —Vaiśâkh-âdishu krishṇê cha yôgaḥ pañchadaśê tithau | Kârttik-âdîni varshâṇi Guror ast-ôdayât tathâ ||,—"and the years Kârttika and others (*that follow*) (*are to be named*) from the rising, after setting, of Jupiter,[5] according to the occurrence (*of Kṛittikâ and other nakshatras*)[6] on the fifteenth *tithi* in the dark fortnight of Vaiśâkha and other (*months that follow*)." The application of this rule seems to be thus:—The years are to be named, according as Kṛittikâ and other *nakshatras*,—evidently those in which the sun and the moon stand, —occur on the *amâvâsyâ* of Vaiśâkha and others immediately preceding or following[7] the day on which Jupiter rises; that is, on whatever day Jupiter may rise, the *nakshatra* on either the preceding or the following *amâvâsyâ*, gives the name to the *saṁvatsara*. This rule seems to have been alluded to, though not in the name of the *Sûrya-Siddhânta*, by Utpala; but it is rejected by him. It may possibly have been occasionally in use; but it certainly does not apply to the Gupta records.

Now, all these quotations distinctly refer, in some form or another, to **the rising of Jupiter**; which it is impossible to understand as meaning anything but his **heliacal rising**. And, if the rising referred to is the heliacal rising, then no astronomer can deny that, in the period of about twelve solar years, there are only eleven conjunctions of Jupiter and the sun, and consequently eleven heliacal risings of the planet.[8] And, this fact being established, the interval of about four hundred days between two successive risings,—the same period, for the duration of each *saṁvatsara*,—the omission of one *saṁvatsara* in each cycle of twelve years,—and all the other points described by me,—follow of necessity.

It will, doubtless, have been noticed that I have not been able to give any quotations from the first **Âryabhaṭa** (born A.D. 476) or **Brahmagupta** (born A.D. 598), in support of the heliacal-rising system. And it might be sought to base some argument against its existence, on the grounds that these two early authorities, who moreover may be said to be the originators of two of the three schools of astronomers in India, are silent about it, though they do give the mean-sign system. But the facts only prove the early existence and use of the mean-sign system; which I do not seek to deny. They do not prove either that the heliacal-rising system did not exist; or that, having existed, it had gone out of use in their time. To take another instance, the first Âryabhata and Brahmagupta give no rule for finding the *saṁvatsaras* of the Sixty-Year Cycle; but, to say that this cycle was not known to either of them, would hardly be sensible. The mean-sign system for the Twelve-Year Cycle is undoubtedly early. But the heliacal-rising system is earlier still. Among the authorities quoted above, the *Sûrya-Siddhânta*[9] is as early a work as the *Âryabhaṭîya*, if not earlier. And that Parâśara, Garga, and Kaśyapa, are earlier than Âryabhaṭa cannot be denied. Utpala quotes a verse of Garga, which, with some proposed emendations, I give as it stands in my manu-

---

[5] With reference to some remarks in the first part of my paper (page 1 above, note 1), I should state that Ranganâtha, one of the best commentators on the *Sûrya-Siddhânta*, explains this verse with the understanding, into which he seems to have been led by Utpala's comments on the *Bṛihat-Saṁhitâ*, viii. 1, that *ast-ôdayât* means 'from the setting or rising.' He adds, however,—*idânîm udaya-vaśât varsha-vyavahârê gaṇakair gaṇyatê*,—"at the present time, the practice of (naming) the year by the rising, is taken into account by astronomers." For the sake of consistency, it is justifiable to translate the expression *ast-ôdayât* as I have translated it above; and the use of the compounded base in the singular, supports that translation. And, since writing the first part of my paper, I have found that Dâdâbhâi, in his commentary on the *Sûrya-Siddhânta*, explains it in the same way; his words being—*tathâ-'stâd udaya-*[illegible] *tat-nakshatra-saṁjñâ Guror abdâ jñêyâḥ*,—"so the year of Jupiter is to be known as having the appellation of that *nakshatra* with which he is joined at the time of (his) rising after setting."—There can be no doubt that *ast-ôdayât* is used here in the sense of 'from the rising after setting;' compare such compounds as *supt-ôtthita*, 'having arisen from sleep;' *lit.* 'having slept and then having risen.'—J. F. F.]

[6] These words, in connection with *yôgaḥ*, have to be supplied from the preceding verse, in which the result exhibited in Table I., page 3 above, is given.

[7] Which of the two, cannot be determined from the context; and I can find no commentator who has explained the point properly. I myself think that the following *amâvâsyâ* is intended. But it seems that Utpala, in his allusion to this rule, takes the preceding *amâvâsyâ*.

[8] In his note on the *Sûrya-Siddhânta*, xiv. 17 (see the Rev. E. Burgess' Translation, p. 271), Prof. Whitney says that Jupiter "would set and rise heliacally twelve times in each revolution, and each time about a month later than before." But this is evidently a mistake.

[9] To say that the *Sûrya-Siddhânta* is a work of Varâhamihira is simply a mistake. I cannot enter into this point at present; but would refer any who hold that view, to Varâhamihira's *Pañcha-Siddhântikâ*, and to Kern's Preface to his edition of the *Bṛihat-Saṁhitâ*.

script copy,—êvam Âśvayujam ch=aiva Chaitram ch=aiva Bṛihaspatiḥ | saṁvatsarô (?ram) nâma(?śa)yatê saptaitêda (? saptaty-abda)-satê=dhikê ||.[10] This verse seems to refer to the mean-sign system: though I can say nothing definitely about it, without seeing the context: of which I have not the opportunity at present. But, supposing that it does refer to the mean-sign system, still it is not unfavourable to the heliacal-rising system: for the same Utpala also quotes a verse of the same Garga, given in a preceding paragraph, in which Garga says:— "when Jupiter, after dwelling together (*with the sun*),[11] rises and walks along with a *nakshatra*, then commences the year of Jupiter, of which the first part (*of the name*) is the (*name of that*) *nakshatra*."

Not only that **the heliacal-rising system** is very early, but that it alone **is the original system of the Twelve-Year Cycle,** is self-evident. The heliacal rising of Jupiter is a natural phenomenon. No scientific apparatus is needed for the observation of it: nor are any calculations required.[12] But such is not the case with the passing of Jupiter from one sign of the zodiac into another, with regard to his mean longitude. No kind of apparatus can determine Jupiter's mean longitude. It is to be found only by calculations, the rules for which must have been established after observations carried on during a very long time: to lay down the means of determining Jupiter's mean yearly or daily motion, is not a thing that can be accomplished in a few years. It seems, therefore, quite evident that the system of naming the *saṁvatsaras* after the *nakshatras* in which Jupiter rises, *i.e.* the heliacal-rising system, is the only original one.

So much as regards the antiquity of the heliacal-rising system. Let us now look into its somewhat later use. Varâhamihira is later than the first Âryabhaṭa. And his verse, with which I have opened my account of the Twelve-Year Cycle, undoubtedly refers to this system. So, also, another of his verses in the *Bṛihat-Saṁhitâ*, viii. 27, points to the same thing. It runs—âdyaṁ Dhanishṭhâṁ śamabhiprapannô[13] Mâghê yadâ=yâty=udayam Surêjyaḥ | shashṭy-abda-pûrvaḥ Prabhavaḥ sa nâmnâ prapadyatê bhûta-hitas tad=âbdaḥ ||,—"when Jupiter, having come to the first (*nakshatra*) Dhanishṭhâ, attains (*his*) rising in (*the month*) Mâgha, then commences that year, beneficial to beings, which is named Prabhava, the first of the sixty years." Now, in eighteen centuries from the beginning of the Śaka era, the Prabhava *saṁvatsara* has occurred thirty times. And, by approximate calculations, I find that Varâhi-

[10] [Gen. Cunningham also has quoted this verse (*Archæol. Surv. Ind.* Vol. X. p. 114); and in such a way, his authority giving *nâśayatê*, where Mr. Sh. B. Dikshit's MS gives *nâmayatê*, as to shew that, in the second half of it, we certainly have to read *nâśayatê saptaty-abda-śatê*.—J. F. F.]

[11] *pravâsâ(t)ê* may be translated by "after having completed his journey," *i.e.* having completed a revolution of some kind or another.

[12] The phenomenon, moreover, is one to which much attention has always been paid in India. Even in the present day, almost all the Hindu *Pañchâṅgs* give the dates of the heliacal rising and setting of Jupiter. This is for religious purposes; since, when Jupiter is invisible, some duties and ceremonies, such as investiture with the sacred thread, marriage, pilgrimages, &c. are not to be performed; and the dates in question are necessary, in order to know when he is visible, and when he ceases to be so. In *Pañchâṅgs* printed in Mahârâshtra, the custom of naming the *saṁvatsaras* after the months is not in use; in fact, the Twelve-Year Cycle is now almost unknown to the people at large of the Dekkan. But in a *Pañchâṅg* prepared by Jwalapati Siddhânti, and printed in the Jñânasûryôdaya Press at Madras, I find that the author, in the *saṁvatsara-phala*, after giving the two *saṁvatsaras* of the Sixty-Year Cycle, according to the northern and the southern reckoning, goes on to say—*sarvatra* [illegible] (*Chaitr*)-*âbdô grahyaḥ*, "all over (India) a (certain) year (*i.e.* such *saṁvatsaras* as Chaitra, &c.), which depends on the rising of Jupiter, is to be taken;" from which it is evident that some such rising-system as that described above is followed in this *Pañchâṅg* from Madras. Also, in the *Chaṇḍu-Pañchâṅg*, prepared for the meridian of Jôdhpur in Mârwâḍ, and used there and by Mârwâḍîs in other parts of India, the *saṁvatsaras* are named as Chaitra-Varsha, Vaiśâkha-Varsha, &c.; the system adopted in that *Pañchâṅg*, however, for naming the *saṁvatsaras*, is the mean-sign system.

[13] The reading that I give is from my manuscript copy. But, [illegible] being very liable to confusion, the reading *âdyaṁ Dhanishṭhâṁśam abhiprapannô*, which is given in some printed copies, may also be of some authority. By calculation, however, I find that Jupiter does not always stand just at the beginning of Dhanishṭhâ at the time of his rising at the commencement of the Prabhava *saṁvatsara*. And I think, therefore, that the reading which I give is the author's original reading. I take *âdyam*, to qualify the word *nakshatram* understood. And Varâhamihira calls the *nakshatra* in question "the first," because his opinion was, I think, that Dhanishṭhâ was the first *nakshatra* of the Sixty-Year Cycle, as it was of the Five-Year Cycle of the Vêdâṅga-Jyautisha; see its verse—[illegible] *Mâghe tu*,—"when the moon and the sun, being in (the *nakshatra*) Vâsava (Dhanishṭhâ), go together in the heavens, then there is the beginning of the Yuga (and of the month) Mâgha"; which two he intends to reconcile.—Kern would seem to have known only the reading *âdyam Dhanishṭh-âṁśa[m]*. His translation, *Jour. R. As. Soc.* N. S. Vol. V. p. 49 f.), which follows also the reading of *pravartatê* for *prapadyatê*, is—"when Jupiter, on reaching the first quarter of Dhanishṭhâ, rises in the lunar month of Mâgha, then begins the first year of the cycle of sixty, named Prabhava, a year salutary to all beings." And he adds the note—"*cf.* Davis, *Asiatic Researches*, Vol. III. p. 220. The word *aṁśa* also means 'degree,' but is here rendered by 'quarter,' according to Utpala, who explains it by *pâda*."—J. F. F.]

mihira's assertion, though not quite correct, is nearly so by the heliacal-rising system. Out of the thirty occasions, Jupiter rose, according to the *Amânta* southern arrangement of the fortnights,[14] twenty-six times in the month of Mâgha; three times early in Phâlguna; and once in Pausha, nearly at the end of it. And on many occasions he rose in the Danishthâ *nakshatra*; and on some, in Śravaṇa. The assertion, however, is not correct for the mean-sign system. According to that system, at the commencement of the Prabhava *saṁvatsara*, which always begins when Jupiter, by his mean longitude, enters Kumbha or Aquarius, he evidently always stands in the middle of Dhanishthâ.[15] But the Prabhava *saṁvatsara* may begin, and as a matter of fact I find by calculation that it has begun, in any of the twelve months, as will be shewn when I treat of the Sixty-Year Cycle. It is evident, therefore, that the verse in question supports the heliacal-rising system. Moreover, the word *udaya* itself is used in it. It might be argued that Varâhamihira's rule (*Brihat-Saṁhitâ*, viii. 22; êk-aikam abdêshu nav-áhatêshu, &c.) for finding the *nakshatra* of Jupiter, has reference to his mean longitude; and, consequently, that it gives the mean-sign system. But it is absurd to suppose that so learned an astronomer as he, stating the rule that a *saṁvatsara* is to be named from the *nakshatra* in which Jupiter rises, did not know that the *nakshatra*, at the time of his rising, can be determined only from his apparent longitude. The reason why he gives a rule for finding the mean longitude only is, in my opinion, this:—Anyone conversant with Hindu mathematical astronomy, knows how tedious a task it is to find the mean longitude of a planet from the *ahargaṇa*, or number of elapsed days, counted from the beginning of the Kalpa or of a Yuga. But, when once it has been found, it is much less tedious to calculate, from it, the apparent longitude by the general rules. So, Varâhamihira, I think, gives a simple rule for finding the mean longitude of Jupiter on a given day, and leaves to the astronomers the calculation of the apparent longitude. Or, it may also be said, as the difference between the mean and the apparent longitudes of Jupiter, on the day of his heliacal rising, is not very much,—sometimes about five degrees and sometimes nearly *nil*, as I have found from several calculations,—Varâhamihira gives the simple rule for rough practical purposes only; leaving it to the astronomer to make more detailed calculations, when absolute accuracy is required. But, even supposing that the said verse of Varâhamihira implies the mean-sign system, it will only prove that he gives both systems.

Let us now turn to the **more modern period.** Of the authorities quoted above in support of the heliacal-rising system, the *Muhûrta-Tattva* and the *Jyôtishadarpaṇa* are comparatively modern. The author of the first is the father of the well-known Gaṇ śa Daivajña, the author of the *Grahalâghava*; and, therefore, its date is about Śaka-Saṁvat 1420 expired (A.D. 1498-99); and it was written at Nandgaum on the western coast, about forty-five miles south of Bombay. The date of the second, as I have determined from certain data in it, is Śaka-Saṁvat 1479 expired (A.D. 1557-58); and it was written at Koṇḍapalli, somewhere in the Karṇâṭaka country. And, in addition to these two, a third reference to the heliacal-rising system has been given in note 5 above, from Raṅganâtha's commentary on the *Sûrya-Siddhânta*. The date of this commentary is Śaka-Saṁvat 1525 expired (A.D. 1603-1604); and it was written at Benares. These details suffice to shew that the heliacal-rising system is referred to in works of a modern period, and belonging to different parts of the country.

It is true that **the use of the Twelve-Year Cycle is rare.** This is shewn by the fact that some astronomical works do not refer to it in either system, though it would not have been beyond their sphere to do so; and by the fact that, out of many hundreds of inscriptions, only seven have been found, mentioning the *saṁvatsaras* of it.[16] But, if the use of the heliacal-rising system is rare, the use of the

[14] I have followed the *Amânta* arrangement here, as also in Table III. on page 6 above, because it is always this arrangement that is actually taken in astronomical works for calculations.

[15] The sign Kumbha commences in the middle of Dhanishthâ and ends at the end of the third quarter of Pûrvâ-Bhâdrapadâ

[16] *viz.* the five records of the *Mahârâjas* Hastin and Saṁkshôbha, belonging to the Early Gupta period and territory; and the two grants of the Kadamba chieftain Mṛigêśavarman (*ante*, Vol. VII. p. 35, and Vol VI p. 24) from the Belgaum District

mean-sign system is still more so. The *saṁvatsaras* mentioned in the four records of the Early Gupta period, which give full details for calculation, are proved to belong to the heliacal-rising system. And, while I have been able to quote no less than eleven authorities referring to that system, a distinct reference to the mean-sign system is to be found in only two; *viz.* the first Âryabhaṭa and Brahmagupta, as quoted above. If to these we add an interpolated verse in the *Siddhânta-Sirômaṇi*, and also hold that Garga and Varâhamihira give the system, even then the number comes to only five.[17] And in about eight of such works as would be expected to refer to the system, of a date later than A.D. 1478, which I have examined, I find a reference to it in none at all.

Looking to the present time, if the mean-sign system is used in one part of the country, the heliacal-rising system is used in another;[18] while, in others, both systems are almost, if not quite, unknown. The mean-sign system is doubtless the more convenient of the two: since the duration of the *saṁvatsara*, roughly three hundred and sixty-one days, approaches so near to that of the solar year; and the omission of a *saṁvatsara* occurs only once in about eighty-five years. And this point of convenience seems to be the reason for which the system was invented by the astronomers. But, as both the systems are given in astronomical works, both of them must certainly have been actually used. And such will always be the case, as long as those works exist.

CONFUCIUS AND HIS MISSION.

BY DR. EDKINS; PEKING.

There is no spot in China held more sacred than the tomb of Confucius. It lies midway between Peking and Shanghai, and is about 400 miles distant from each of these cities. The lineal descendant of Confucius resides here, and attends to the sacrifices and to the careful preservation of the various antiques which are here deposited. The country is flat, but sixteen miles away is a small hill called Ni-shan. In the year 552 B.C the wife of a provincial scholar, respectable in station, might have been seen approaching this hill to worship. She offered a prayer to the spirit of the hill and returned. She was dressed in a somewhat rough-looking grey silk robe. The sleeves were deep and full, covering her hands. The left portion of the robe was made full enough to cross under the neck over the right portion of the robe and was held in its position by a girdle tied in front. The feet were completely covered. The next year a son was born to this lady, and his parents gave him the name Kieu, or 'hillock,' in remembrance of the prayer. Two days before his birth, it is said, a beautiful unicorn was seen near to the house called the *chi-lin*. This creature being seen is an omen that a sage is about to be born. He resembles a deer in shape but has scales like a dragon and fleshy horns, and never appears but as a portent of some great event.

At six years of age Confucius shewed great fondness for imitating ancient ceremonies, and persuaded his companions, instead of any rougher play, to join him in mimicking observances connected with worship and with funeral rites. He went to school at seven years of age, and his schoolmaster's name is recorded as Ping-chung, who was a magistrate acting at Tung-ngo, a place still in existence, and its name preserved on the map of the province of Shan-tung. In pictures, the master sits under a tree, and a few scholars, the school companions of Confucius, are seated on stools irregularly placed near to the master's table.

At the age of seventeen Confucius accepted a post which required him to be in charge of the market-bargaining with the people. He inspected articles and prices of goods brought to market, and decided upon the correctness of weights and measures. He married the daughter of his superior in office in his nineteenth year. When his eldest son was born, the ruler of the Loo kingdom, under whose jurisdiction he had been acting as an officer of markets, sent him

[17] A verse containing a reference to the system is given as belonging to Śrîpati in Pandit Bapu Deva Shastri's edition of the *Siddhânta-Sirômaṇi*, p. 13, note; but I do not find it in the *Ratnamâlâ* of Śrîpati.

[18] See note 12 above.

as a present a carp, and Confucius therefore named his son Li, that being the Chinese word for 'carp.' Native artists represent the sage as standing at his door with folded hands, prepared to receive the platter of fish from the servant who accompanied the official messenger of the prince.

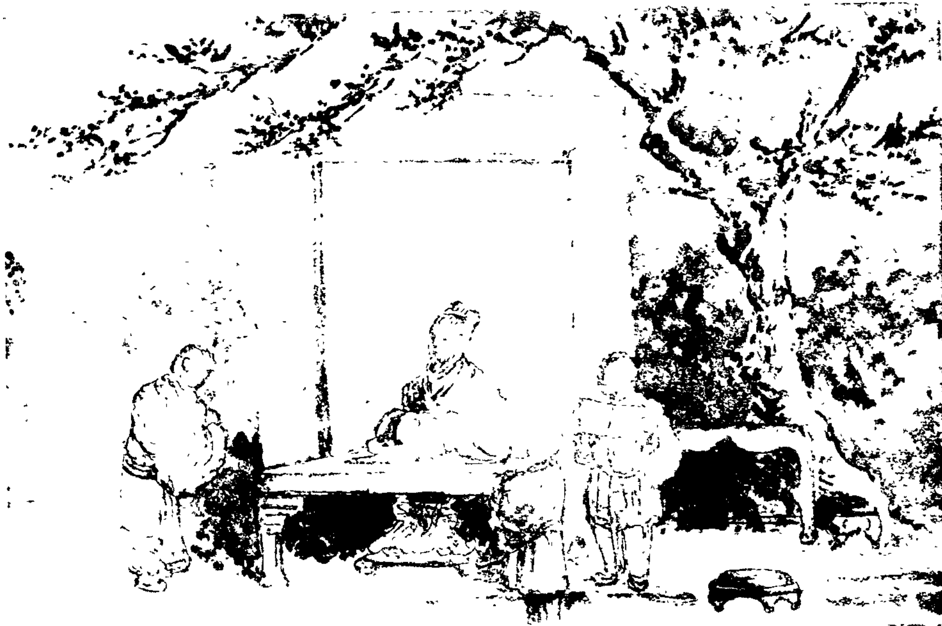
Confucius, while still young, was a diligent inquirer into ceremonies, and it is mentioned that he visited the ancestral temple of the sovereign of Loo to enquire into the details of worship. The harp, the bell, and the musical stone, the vases in which the offerings were placed, and the other implements used in sacrificing, were all in turn the subjects of his questionings. The intense interest shewn by him in ceremonies was one of the reasons why he attained, while comparatively young, the reputation of a sage. In one of a hundred scenes engraved in China to accompany biographical notices of Confucius, may be seen the master seated at a table with his pupils around him. Two new disciples are just entering. They are grave men coming to consult the sage. They do so because they have been recommended by their instructor, just deceased, to rely in future on the aid of Confucius in their studies. In the *Great Instruction*, the first among the *Four Books*, there is a sentence which has become very popular—"Let justice be your profit." In a kingdom, gain is not to be considered as gain. Its gain will be found in justice. That is, the aim of men must be to do justly and to regard this as prosperity. These were, it is said, the words of a forefather of the dying statesman, who recommended his pupils to follow the teaching of Confucius. With him they would be morally safe. This sentence from the *Great Instruction*—"Gain will be found in justice"—is a great favourite, and is frequently seen written on the doors of tradespeople in China in interchange with such sentences as "Those who are loyal and filial will long maintain their family prosperity." At the present time the same sentence is often quoted by the Chinese in defence of their conservative policy. If they are advised to adopt railways and the foreign method of working mines, in order to increase the material prosperity of their country, they reply that this would be to invert the teaching of the sages by putting gain above justice. When statesmen use this language they mean that they prefer to hold firmly to Confucianism, but it is not unjust to say that the real cause of their want of willingness to inaugurate improvements is that they possess too much indolence, timidity, and narrowness of view, to allow of their making any decided progress, willingly at least.

Confucius went on a visit to the Chow country, the imperial domain. He is usually represented as travelling in a carriage drawn by two horses, the gift of his sovereign. He would proceed westward for ten or twelve days to reach the old capital of the Chow emperors. He there saw the founder of Tauism, known as Lau-tan. In the modern engraving contained in the hundred pictures of the life of Confucius above referred to, Lau-tan is an old gentleman, sitting at a table on which a harp lies. This he plays. He has a high forehead deeply marked with the lines of age. Confucius is 51 years old, grave, intelligent and polite. He asks information as to the ceremonies of the Court. Lau-tan, being an officer of many years' standing, is well able to answer his enquiries. On parting he said to his visitor,—"Not being rich, I have no valuable things to present to you. The good man, when parting, speaks his thoughts. It is robbery for me to claim to be good, but I speak my thoughts; and this I say, that with intelligence you distinguish deeply and are bold to advise even if death be near. Your views are broad; and even when dangerous to yourself you will expose men's crimes. As a son, you regard yourself as entirely belonging to your father and mother, as a subject, as entirely belonging to your prince." This interview is mentioned in the life of Confucius, written about 100 B.C. by Ss-ma-tsien. In the extant sculpture of this visit made about the year A.D. 150, Lau-tan stands leaning on a staff. Confucius presents him with a bird as a gift, and another bird flying near is added as an ornament. Both the sages wear a flat-crowned hat with turned-up brim. There are no characteristic features, nor any attempt to express the greatness of the two sages. The merit of the sculptured group is that of representing the customs of the time. The costumes, the usages, the stamp of Chinese antiquity are there. In the artist's mind the two sages are

Portrait of Confucius.



Scenes in the life of Confucius.



grandees of the Cheu dynasty and nothing more. In the hundred pictures the conception of the Sung dynasty appears, and here the accessories are in keeping. Art was then improved. The philosophy of the tenth, eleventh and twelfth centuries, had followed the poetry of the seventh, eighth and ninth. Together they had completed the ideal of antiquity. Men such as Confucius and Lau-tan obtained a conventional treatment in accordance with their historical importance. Here lies the difference between the Confucius of the Han dynasty artist, and that of the Sung dynasty.

Another of the hundred pictures represents **Confucius** as enquiring respecting ancient music from an officer of the Chow kingdom, named Chang-hung. Confucius is on the right, as guest. Behind the host is a table on which are placed a musical stone and a bell. To the right of Confucius is a boy with a harp. Near to him two pupils of Chang-hung are placed by the artist to fill the picture on that side. They are listening to the conversation. Another pupil adjusts the musical stone. The remainder are variously occupied on the left with a harp or a book. The conversation convinces Chang-hung that Confucius is a sage of the highest rank. He mentions his opinion to a friend, and remarks that the ancient kings were in manner complaisant and obliging. "They sought knowledge from every source and carefully retained it. They searched into the nature of things without ever resting. Is not Confucius a sage of the same rank as they?" To this his friend replied, "The good usages of the ancient sages were sunk into disrepute. The ceremonial and the music of Yau and Shun were in a state of decay. The aim of Confucius was to restore them." Confucius heard this and said, "I am not a sage. I dare not take to myself this honour. I am only one who is fond of ceremonies and music." In the Chow dynasty the chief musician was also the chief educator. It was, therefore, natural that Confucius should attribute to music a first-class importance. When he heard performed the ancient music of the emperor Shun, it is said that he was deeply affected. For three days afterwards he could not distinguish the special flavour of animal food. The fact is that the traditions which had reached China, of the rule of wise kings of antiquity, were pervaded by the notion of the mild force of example and the power attendant on a good and pure life. The ancient kings renovated their contemporaries by music as well as by moral teaching, and their high character as regenerators of society is understood to spring from the possession of a mild harmonizing genius of which the musical faculty was the outward sign. The ancient idea of a model government is, with the Chinese, neither commercial nor military, but moral. The ideal Governor is a civilizer, who wins the hearts of the nation by justice and benevolence.

After serving the State as Chief Minister until he was 57 years of age, **Confucius** retired, and occupied himself with editing the classics. In the ancient poetry he found the glorious example of Wen-wang carefully elaborated. The body of words were combined in this ideal with high moral wisdom. Such a man might be a model for prince and people. So also were Yau and Shun, Yü and Tang, examples of the highest class as men, as kings and as sages. Confucius felt **his mission to be** the preservation of the words, works, and historical significance of these men, for the benefit of posterity. His eye rested on the past. He was by temperament conservative. He felt a supreme dislike for bad moral conduct, for tyranny, for crime and all breaking away from good tradition. With this in his mind he undertook to edit the classics. His official life and his travels had prepared him for this. He had good opportunities, and he did what he could with the documents he was able to consult.

When Confucius undertook to edit the classics, with the purpose of perpetuating the good example and teaching of the great men of antiquity, he found that there were **five subjects to be treated.** These were history, poetry, ceremonies, music and divination. The **history** he had to preserve was the royal chronicle of the time of Yau and Shun, 2356 to 2205 B.C.; the chronicle of the Hia dynasty, 2205 to 1766 B.C.; that of the Shang dynasty, 1766 to 1122 B.C.; and that of the Chow dynasty, 1122 B.C. to his own times. The **poetry** he found in existence was partly royal, or official, and partly popular. So far as it was official, it was written by official poets, for use on occasions of sacrifices, banquets, marriages and

other state occasions. Chow-kung wrote a part of the local songs, and the other portions of these songs were made official by their reception into the royal collection. Whether Confucius rejected some or not, is a debated question. Yuen-mei says no. Chau-yi says he rejected more than 200. Both of these learned scholars belonged to the last century. Legge thinks Confucius did nothing to the book. But, however that may be, it has many sweet pictures of early manners. It has high praise for sages and for the virtuous. It sings of battles, of the harvest field, of the hunt, the banquet, and the sacrifice. It boasts of no epic grandeur, but it has idyllic scenes, which please a refined taste in love with the primitive and the antique. Confucius also discoursed on the importance of **ceremonial observances** for the king, the officer and the private man. There are three classical works on ceremonies. They describe in detail the laws, the grades and duties of office, the rules for marriages and for funerals; in short, all the ancient institutions and customs of the land. But how far Confucius had his hand in them is not known. Nor can we now learn what he did in preserving the ancient **music.** This, however, we know, that in one of the three classical books first mentioned there are preserved a few notes of very ancient sacrificial melodies, enough to tell us that such music as they then practised was slow and solemn, and consisted of four or five notes only. The lute, the panpipe, the bell and the musical stone, were the favourite instruments. Dancing accompanied the music, and this was also slow and solemn. The object of both was to inspire all persons with reverential feelings suitable to a religious service. Confucius had to decide on all these things, and, lastly to edit **the Book of Divination.** When he grew old, he made this his chief study. It was supposed to contain the most profound results of the teaching of the sages. In it also there was much of a frivolous nature. This, however, he allowed to remain. To tell fortunes by straws, is not a very dignified occupation. Yet the sages of China had to countenance it, and to read with respect a multitude of recorded instances of divination, because they were enshrined in a book belonging to the ancient sages and possessing their authority. On the other side, it should be said, that there are many good moral statements in this old book. As a picture of what the Chinese thought in the twelfth century before Christ it is indeed invaluable.

This book and the others constitute **the Bible of the Chinese.** The great credit of Confucius amongst his countrymen is based on his repute as an Ezra in fixing the canon, besides being generally their chief guide in education, statesmanship and morality. If we take this book which comes down or dates from the age of Eli and Samuel of Hebrew history, and turn over its leaves,—a book, let it be remembered, which 200,000,000 of our fellow men regard as their most sacred treatise,—what do we find? Let it be the forty-eighth oracle. It is the oracle of the well. Under the figure of a well the words are,—"When you change a city, you do not change the well. The water grows no less nor does it increase. To those who come and those who go, the well is still the well. They draw up water. When the rope is yet not at the top, if the bucket breaks it is unlucky." In the figure itself, the idea is that of wood going into water. The lesson drawn is the need of care in government to avoid a catastrophe. Cities change, but monarchy and law continue to rule. Other ideas similar to these are drawn from the oracle. This example gives a very good notion of the most admired of the Chinese classics, of its antiquity, and the style of comment with which for 3000 years the Chinese have been accustomed to discourse upon it. A good portion of this ancient manual of divination is even older than 3000 years. It is, therefore, very full of interest, since there is no country, except the land distinguished by the Christian revelation, which has retained a literature fortified by historical and chronological data uninterrupted during the flight of so many ages. This was the kind of book that Confucius studied when he was advanced in age. Perhaps he admired in it not so much its oracular ambiguity as the clear moral sentences and a certain breadth of view which the reader meets with here and there when the authors are throwing glances at the outer universe. A philosophy of nature here comes upon the scene which was destined to exert an immense influence and to have a

Scenes in the Life of Confucius.





long career. It aims to reduce all existence into groups, to embrace nature, in all her aspects, in one comprehensive whole, and to bring the universe, by means of steady and profound thought, under the control of the sage. It was in this field of thought that Confucius loved to expatiate when he was in the maturity of his powers. With it harmonized, not unsuccessfully, the philosophy of the Chung-yung, that is of the *Invariable Mean*, a book published by his grandson, which contained in it the philosophical principles held by Confucius.

The portrait of Confucius here given,—from a drawing (taken from Chinese wood-cuts) by a lady friend of the writer,—is not of the Han dynasty tradition, but that of the Sung dynasty, the result of later criticisms. When Buddhism led the Chinese to be in love with idolatry, they made pictures and images of various Tauist gods, and at last it occurred to them to make use of images in the temples of Confucius. At the time of the invention of printing, the art of wood-engraving became common, in the eleventh and twelfth centuries. In memoirs of Confucius, and in books containing an account of his temple and tomb in his native city, it became a common thing to introduce a portrait of the sage. This was ideal rather than real; and it represents what the Chinese of the middle ages thought Confucius ought to have been in feature and in dress.

In the last scene the sage is standing before a tombstone, pencil in hand, inscribing the name of an ambassador from the Woo country, who was buried there, and whom Confucius praised for his economy in the expenses of his own funeral and for his acquaintance with the mysteries of philosophy.

MISCELLANEA.

PROGRESS OF EUROPEAN SCHOLARSHIP.

No. X.

Zeitschrift der Deutschen Morgenländischen Gesellschaft (Journal of the German Oriental Society)

(a *Vol. XL. Part III.* (1886):—

Professor David Kaufmann opens the part with an article on **Ibn Saruk's Hebrew Dictionary, Menachem.** He urges the necessity of critical editions of Hebrew works of the middle ages. He takes the *Menachem* as his text, and shows the great differences between the printed text of Filipowski (London, 1854) and the available MSS. The article is a purely critical one and cannot be summarized.

Signor L. Morales follows with an interesting paper on the book of the **Entertaining Stories of Bar Hebraus.** The MS containing this, forms a portion of the *Syriac Codex* No. 173 of the Vatican Library, which was written in the year 1333 A.D. The collection contains about 700 sayings and anecdotes, some of which Bernstein has published in his *Chrestomathia Syriaca*. The work is divided into the following chapters; from each of which the author gives extracts (text, translation and vocabulary).

Chapter I. Useful sayings of Greek Philosophers.
,, II. Useful sayings of Persian wise men
,, III do of Indian do.
,, IV. do. of Jewish do
Chapter V. do. of Christian anchorites
,, VI. do. of Muhammadan kings and wise men.
,, VII. do. of doctors and the learned.
,, VIII. do. of Arabian ascetics and reverends
,, IX. Anecdotes of physicians, and of what is connected with them.
,, X. Selected Fables concerning the speech of irrational animals.
,, XI. Anecdotes concerning those who interpret dreams and deal in magic.
,, XII. Anecdotes concerning rich and magnanimous and generous men
,, XIII. Anecdotes concerning covetous and avaricious men.
,, XIV. Anecdotes concerning men of business.
,, XV. Merry anecdotes concerning mimes and players.
,, XVI. Anecdotes concerning boorish and stupid men.
,, XVII. Anecdotes concerning fools and madmen.
,, XVIII. Anecdotes concerning thieves and robbers.
,, XIX. Wonderful anecdotes and adventures.
,, XX. Physiognomical signs mentioned by the wise.

To Indian readers the third chapter will naturally be the most interesting, and the following extracts are therefore taken from it:—

(Leaf 90.) "It is said that when any one dies in the house of an Indian his friends arm themselves, go before his door, and say, 'Show us him who hath slain thy beloved, that we may slay him.' If reply is made, 'The unconquerable invisible is his murderer,' they say, 'Grieve not all too much over something against whose power neither thou nor we can fight.' In this manner console they the mourners."

"One of them (the Indians) said, 'The wound of the spear healeth quickly, but wounding by the word is unhealable.'

"Another said, 'The appetites of this world are like the water of the sea, no matter how much a man may drink thereof, his thirst remaineth ever as great.'

"Another said, 'Wine hath four properties which it giveth to those who drink it. First, it hath the property of the peacock, *i.e.* his (the drinker's) colours and motions become beautiful; then the property of the ape, for he beginneth to joke with everyone; then the property of the lion, for he trusteth in his strength and becometh proud; and lastly, the property of the pig, inasmuch as he maketh himself inordinately drunk, walloweth in the mire and finally speweth out filth.'

(Leaf 91) "Another was asked, 'What does a woman without a man resemble?' and he answered, 'A river without water.'

One more example, taken from the tenth chapter of this old Syriac collection of folk-lore, may be given on account of its close connexion with a well-known Indian fable:—

(Leaf 115) "The wolf, the fox, and the lion joined in partnership, and caught in their hunting a goat, a doe and a hare. Then said the lion to the wolf, 'Divide them amongst us.' The wolf said 'The goat for thee, the doe for me, and the hare for the fox.' When the lion heard this he waxed wroth and sprang on the wolf and killed him. Then said he to the fox, 'Do thou divide them.' Replied the fox, 'The goat for your breakfast, the hare for your dinner, and the kid for your supper.' Then said the lion to him, 'From whom didst thou learn this fair division?' The fox replied, 'From the wolf, your Majesty, who lieth before thee.'"

Dr. Adolf Baumgartner follows with a paper on the Armenian work on Rhetoric, entitled the **Book of the Chrie, by Moses of Choren.** The rhetoric of this author, written in the tenth century, consists of ten books and an appendix. Each book is devoted to a distinct rhetorical artifice, and commences with a definition, followed by a number of examples of the artifice dealt with. The titles of each book are given in Armenian; the following are the Greek translations:—

1. *περὶ χρείας.*
2. *περὶ γνώμης.*
3. *περὶ ἀνασκευῆς.*
4. *ὅρος χοινοῦ τόπου.*
5. *ὅρος εγχωμίου.*
6. *περὶ ψόγου.*
7. *ὅρος συγχρίσεως.*
8. *ὅρος ἠθοποιΐας.*
9. *ὅρος εχφρασέως.*
10. *ὅρος θέσεως.*

The work is an imitation of the *Progymnasmata* of Aphthonius, or of Theon, or of both. The subjects of the origin and contents of the work are dealt with at considerable length.

Dr. M. Heidenheim contributes a controversial **article on a new edition of the text of I. Samuel.**

Dr. Adolf Fr. Stenzler gives an interesting note on the **असिधाराव्रतं** which is mentioned in the 13th book of the *Raghuvaṁśa,* in the *Kathâ-Sarit-Sâgara*, and in the *Pañchatantra*. Mallinâtha's commentary on the first passage is quite unsatisfactory, but Dinâkara's supplies the needful explanation. He says **एकस्यामिव शय्यायां मध्ये खड्गं निधाय स्त्रीपुंसौ यत्र ब्रह्मचर्येण शयाते तदसिधाराव्रतम्.** 'if a woman and a man on one and the same bed place a sword between themselves, and so remain in chastity, it is called **the vow of the sword-blade.'** This is borne out by the Old German custom mentioned by Jacob Grimm in his *Deutsche Rechtsalterthumer*, p. 168;— 'It was an ancient custom, if a man slept by a woman, whom he did not wish to touch, for him to place a sword between them, and to lay himself down.' He then quotes numerous examples. K. Weinhold (*Die deutschen Frauen*, I. 348; II 9) relates a similar custom.

Dr. Stenzler concludes, 'It would not be too rash to conclude from the above coincidence, that this custom, like many others, has been preserved from the most ancient times in various branches of the Indo-Germanic stem. That Mallinâtha does not appear to have known more about it, can be explained by the custom having disappeared in his country in the far south, and being no longer there remembered.'[1]

---

[1] In a subsequent note (p. 771 of the same volume) Dr Stenzler mentions that it has been brought to his notice that this expression has been previously dealt with by Professor Weber in his treatise '*Ueber eine Episode des Jaimini-Bhârata.* The vow is there called the *asipattravratam* —[I may note that the same custom

A short note by Professor O. Bohtlingk suggests a textual emendation to Vasishtha I. 22; and in connexion with *id.* II. 35, quotes some curious instances of false etymology.

Dr. G. Buhler contributes a reply to a former article of Dr. Bohtlingk's on *Apastamba.* The paper principally deals with questions of textual criticism.

Dr. Ernst Kuhnert gives us an interesting paper on **Midas** in Legend and in Art. He examines the **Midas myth** from its earliest form to its latest development, and concludes that it is a mixture of the ancient **Silenus myth** with reminiscences of an actual powerful king of Phrygia named Midas. He then traces the various known specimens of ancient art representing episodes in the legend.

The number concludes with a notice by Signor Ign. Guidi of a short Syriac life of the Patriarch Sabhrisho (596-604 A.D.). The text is given in full. The MS. from which it is taken is *Cod. Vatic. Syriac.* 183, fol. 367. a2.

(*b*). *Vol. XL. Part IV.* (1886).

The number commences with the historico-heroic poem of **Ibn Al Mu'tazz** entitled **Mu'tazid as Prince and Regent.** The text with full commentary and translation into German is given by Dr. Lang. The text is founded on the MS. of the Bibl. Nat. at Paris, No. 1439, written in the year 1007 A.H. The poem sings of **Abû'l 'Abbâs bin Al-Muwaffaq** from his first appearance (266 A.H.), to his death (289 A.H.). The entire text, and a portion of the commentary and translation, are here given.

Dr. M. Klamroth continues his interesting paper on the **Greek physicians mentioned by Al Ya'qûbi.**

Dr. Philippi next deals with the pronunciation of the **Semitic letters** usually represented in the Roman character by *w* and *y*, and in the Arabic character by و and ى. After a minute comparison of the use of these letters in a number of Semitic languages, the author comes to the conclusion that we may assume that originally they were only spoken as consonantal vowels and like other consonants were written, and that also *u* or *i* in the so-called diphthongs *au* and *ai* were represented by these letters, but that when these diphthongs were contracted to *ô* or *ê* respectively, the consonantal *u* or *i* could be omitted, as has happened in Phenician; while in Hebrew they have remained as signs for the long sonant vowels *ô* and *ê*.

To Anglo-Indians, the most important paper in this number is a continuation of Dr. P. von Bradke's important essays on **Ancient Indian Religion- and Language-History.** The professor takes as his text the German word *garten* 'a garden,' which he identifies with the Sanskṛit *griha*, 'a house,' through the Gothic *gards* 'a house,' instead of connecting it with the Greek χορτος and the Latin *hortus* as has been done by Kluge in his *Etymologisches Worterbuch der deutschen Sprache.* This derivation necessitates the reference of *griha* to an older form **gridha*, instead of deriving it from the root *grah* or *grabh*

From this he leads on naturally to his next (fourth essay)—'**On Sanskṛit *h*, equivalent to Indo-Germanic *dh*, *bh*, and the place of the Vedic language amongst the Indo-Aryan Dialects.**' The author endeavours to formulate the rule according to which a Sanskṛit *h* is to be referred to an original (Indo-Germanic) *dh* or *bh*. He first gives all the instances with which he is acquainted in which this is certainly the case. I give them here in an extremely condensed form:—

(1) The suffix of the 1st pers. plu. med.-*mahê* -*mâhi*.; Greek -μεθα.

(2) The suffix of the 2 sg. imperat. act. *hi* or *dhi*; Greek -θι

(3) *hita* from *dhâ*, beside -*dhita* (-*dhiti*) as second member of a compound (*sudhita*, &c.). Cf. on the other hand *ahita*, *purôhita*, &c.

(4) *rô'hita*, 'red,' beside *rudhira*; Gr. ἐρυθρος.

(5) *ruh*, *rôhati*, 'to mount,' 'to increase' = *rudh*; *rô'dhati*; Zend, *rud*, *raodheñti*, 'to increase'

(6) *griha* = Gothic *gards*.

(7) *grah*, *grih* = *grabh*, *gribh*; Zend *garew*

(8) *kakuha* (RV), beside *kakubh* (RV), *kakubha* (VS); Gothic *haubiþ* (?)

In only two of the above instances (Nos. 1 and 6) do both forms not occur in the oldest Indian language. Dr. von Bradke finally comes to the conclusion that from the above examples, or from those cases in which a Sanskṛit *dh* or *bh* appears without a corresponding *h*, it is impossible to formulate any rule depending either upon accent or position. He next considers the following pairs of Sanskṛit forms, which are most probably of Indo-Germanic origin:—

(1) *rah*—*radh*, cf. *radhâ* (*radhâ*: *radh*: *vear vehere*).

(2) *hvar*, *hru*—*dhvar*, *dhru*, cf. *druh*

(3) *har*—*bhar* (cf. also *dhar*).

(4) *sparh* (*sprihayati* R V) beside *spardh* (*spardhate*).

(5) *nah*—*nadh*.

(6) *harsh*—*bharsh* in *bhrishti*.

is familiar to the students of popular folklore in Bihar. Bijai Mall's sister-in-law, in the well-known folk-song (Song of Bijai Mall, *J. A. S. B.* Part I. special number, 1884, p. 140), attempts to seduce him and lays herself down beside him in the bed. But he places a sword between her and himself, and calls her his sister and his mother, in token of his refusal of her advances. See *Pa[illegible]. Arch. Surv. Ind.* Vol. VIII. p. 112.—G. A. G.

(7) *har, hriṇîtê*—*bhar. bhriṇâti.*

(8) *har. haryati*—*dhar.*

(9) *guh*—*gûḍha, gûḍhvî, aghukshat, jugukshatas* RV.; Zend. *guz*; Indo-Ger. *ghugh* or *gugh.*

These also refuse to lend themselves to any general rule, and the author concludes that we must also give up this attempt to explain by any sound law the peculiar Indian forms with *h* beside old *dh, bh.*

If we venture on a further investigation, the point arises whether these double forms may not be explained by the influence of other Indo-Aryan dialects. He therefore proposes to himself the three following questions:—

(1) Do general considerations forbid the idea of the influence of other Indo-Aryan dialects on the language of the Vedic poems, or the idea of the existence of such dialects?

(2) Do we find, with reference to the phenomena which we have just been considering, clear traces of other Indo-Aryan dialects in the *Rig-Vêda* as handed down to us? In other words, do we find in the *Rig-Vêda*, as sporadic instances, sound-changes the same as, or analogous to, those which regularly occur in such popular Indo-Aryan dialects as we know, and which belong to a much later time?

(3) Is the change of an intervocalic *dh* or *bh* to *h* one of the sound-tendencies, which are specially frequent in the later Indo-Aryan dialects?

If, says the author, we can answer the first question in the negative, and the second and third in the affirmative, we shall have some right to refer the phenomena hitherto dealt with to the influence of the oldest popular dialects.

The discussion of the answers to these questions would well deserve complete translation, but space forbids more than a close abridgment of the heads of the arguments.

With regard to the point No. 1 we must first consider if the language of the *Rig-Vêda* is contemporary with or later than the entry of the Aryans into India.

The Hymns of the Rig-Vêda are no folk-songs, their language is no popular dialect. They are not in an undeveloped speech which has to struggle at every step for adequate means of expression. Nay, the greater number are in a formal shape, and the ideas, often already not original, are cast in a fixed poetic mould. The oldest Indian poetry must have been left far behind before it had arrived at this stage of progress, although there are, it is true, fragments in the *Rig-Vêda*, perhaps even whole poems, which may have been handed down from antiquity. The Vêdic Hymns were certainly considered holy, and sanctity was ascribed to the priests, but the people had not yet arrived at that stage when, owing to worship of ancestors, every word and syllable of half-understood songs was considered a holy thing in itself. That stage was not reached till the holy tradition began to be unintelligible and it was no longer possible to compose other hymns like those handed down, or even to alter those which were already possessed. Then only was it that the necessity of fixing the forms of the words and of sounds, became apparent, and that every letter was endowed with sanctity. Till then the oldest songs must have been handed down by word of mouth from generation to generation, and must have been altered in the process, till they were fixed for ever by the Vedic collection, just as has happened in the case of Luther's German translation of the Bible, although this has been, to a certain extent, protected from the grossest class of alterations by the fact of its being printed. It is, therefore, not the time of the beginning or of the bloom of the oldest Indian poetry, but that of its decline, which gives its characteristic colour to the collection as handed down to us.

In considering these changes, an important factor is the spoken language. So long as a literature is living, it can never entirely withdraw itself from that influence, and the ancient Rishis were the less able to protect themselves therefrom, either in the traditional rendering of old or in the composition of new hymns, because the preserving power of writing was unknown to them. We may assume that, besides the literary speech in which they sang and held mutual converse, they also spoke the local vernacular dialect. In this way it became impossible to avoid the introduction into the holy language of dialectic variations,—especially in the case of isolated forms, or of words of daily life,—and the nearer the dialect was to the literary language, the more impossible it was. If a man talked to his wife about his *griha*, or said to his daughter *êhi*, 'come,' it might easily happen for him to use the same words in the 'correct' speech; and his son would not hesitate to introduce these gradually adopted forms into poetry. In fact the circumstance that we find comparatively modern forms, due to dialectic influence, in the oldest hymns, no more argues against either the ancientness of the hymns or the modernness of the forms, than the finding of modern forms in a German Bible, printed in the present century, would be considered as proof against the age of Luther's translation, or against the modernness of these forms.

If, therefore, we are entitled to assume that by the time of the collection of the hymns of the

Rig-Vêda, popular dialects had developed by the side of the Vedic literary language, there is every possibility that the former have influenced the latter.

But are we, in fact, entitled to assume the existence of Indo-Aryan popular dialects at so early a period?

If, as it has been attempted to prove above, our *Rig-Vêda* collection belongs to a late period of the oldest Indian lyric poetry, it must follow that it belongs to a period long posterior to the time when both the Aryan branches formed one people. This is borne out by other independent considerations, such as the retrogression (and, in the case of Dyaus, the disappearance) of the older divinities before the newer gods. But if we may assume that, between the separation of the Aryan brotherhood and the collection of the *Rig-Vêda* hymns, a considerable period elapsed, it is *à priori* probable that during this period dialects were formed, closely related, it is true, to the literary language, but still distinct from it. From these and other reasons, the *possibility* of the existence of popular dialects, clearly distinct from the Vedic language, before the final editing of the *Rig-Vêda* as we have it now, must be unreservedly admitted. But only the possibility: and not till clear traces of dialectic influence are proved to exist in the *Rig-Vêda*, or till we can point out in the later Indo-Aryan dialects forms of Indo-Germanic origin which must necessarily be referred beyond the *Rig-Vêda*, shall we be in a position to consider as proved, the simultaneous existence of the Vedic language, and of other Indo-Aryan dialects. In that case we must look upon the former as a perfected literary language, and it is at least possible that it differed from the contemporary dialects not so much in its inflexions or in its vocabulary, as in its being already in a state of formalness and ossification.[2]

This brings us to the second question 'Do we find clear traces of other Indo-Aryan dialects in the *Rig-Vêda* as handed down to us'?[3] Before answering this, it is necessary to consider generally the relationship which the middle and modern Indian dialects bear to Classical and Vedic Sanskrit. The following is a brief outline of the considerations advanced by the author:—

(1) Without doubt, Pâli stands nearer to Vedic than to Classical Sanskrit in many important points.

(2) The same appears to be the fact in regard to the middle and modern Indian dialects.

The following go to prove this:—

(*a*) The manner in which words are dealt with in a sentence can hardly be explained by the *saṁdhi* rules of Classical Sanskrit.

(*b*) Pâli and Prâkṛit agree with Vedic Sanskṛit in a whole series of sound and inflexion forms,—in which they differ from Classical Sanskṛit; *e. g.* the change in Pâli of intervocalic *ḍ*, *ḍh* to *ḷ*, *ḷh*; the Aor. form *áka* = Ved. *akar*; the Infinitive *tuve* beside *tum*; the nom. pl. of *a*-stems in *âsê*, compared with Vedic *âsas*; the Prâkrit Abstr. suff. *-ttaṇa* = Ved. *-tvana*.

If, moreover, we consider that Classical Sanskṛit, as the language of the learned and of literature, must have continually influenced the remaining Indian dialects, and also that in these dialects forms which stand specially near classical Sanskṛit, may also be loan-words from that language, then we shall be but slightly inclined to treat Classical Sanskrit as the mother of the middle and modern Indian languages. But does it therefore follow that these languages are derived from Vedic Sanskṛit?

We find from the oldest literary records of the Greeks, Germans, and so forth, that in their time the languages existed each in several dialects. So, it is reasonable to suppose, was the case in India. This accounts for double forms like *ébhis* and *ais*, *ásas* and *ás*, and the like. It is difficult in many cases to separate the older portions of the *Rig-Vêda* from the new; for the whole, as we have it, is presented to us in the conventionally coined speech of one special period of Indian lyric poetry. A great portion of the hymns were written already in that lyric language; and even such songs as were perhaps originally sung in purer dialect, have scarcely been able fully to escape the influence of this literary language. The language of the *Rig-Vêda* is closely approached by that of the other Vedic writings. That of the more modern Vedic writings gradually approaches that of Classical Sanskrit, in which the ancient literary speech of India has preserved to the present day its final form.

It would be no more reasonable to assume that the mediæval and modern Indian dialects are sprung from the Vedic literary language, than that the Grecian dialects are sprung from the language of Homer. It would be much more reasonable to search for the older stages of the modern Indo-Aryan dialects, in those dialects from which the Vedic literary language may have sprung. But even such an assumption is unnecessary. The probability is that the mediæval and modern dialects are sprung from other ancient dialects, and that the dialects from

---

[2] The author in a subsequent communication refers to ...of A. Weber's *Indische Studien*, II, 110 ff., and 56 ff.

[3] More fully given above.

which the Vedic Literary language was developed, or at least some of them, died out at an early date.

The author next quotes Professor E. Kuhn (*Beitrage zur Pali-Grammatik*, p. 10), in support of the view above advanced. He then considers examples of Pâli, Prâkṛit, and modern forms which must be referred back, not to the language of the *Rig-Vêda*, but to the popular dialects which developed contemporaneously with it. Examples of this kind have been given by Kuhn, but some are doubtful. But, at any rate, the Pâli *rukkha* appears to go back to an Indo-Germanic by-form besides the Sanskṛit *vriksha*. So also the Pâli *suṇoti, suṇati*, appears referable to a form *śruṇôti*, older than the Sanskṛit *śriṇôti*.

It is well known that already in the Vedic language there are appearances which remind one of Prâkṛit A complete and systematic examination of these is desirable, but would exceed the bounds of the essay. He, therefore, proceeds only to collect a series of **Vedic forms,** which run **contrary to the sound-tendencies,** as hitherto known to us, of **the language of the Hymns,** and to examine whether the forms comply with the sound-tendencies of later Indo-Aryan dialects, or at least are in accordance with the general direction of these tendencies. This may enable us to answer the question now under consideration.

He begins with a few isolated forms, which appear to be loan-words in the Vedic language.

(1) In Vedic and Classical Sanskṛit, *s* in certain cases becomes *sh*. In the later dialects the three sibilants of Sanskṛit are treated as one,—usually the dental. Now there are Vedic forms like *ribîsa, busa, brisaya*. These may be considered as loan-words from other Indo-Aryan dialects. Indeed the *s*, if it represents an Aryan *s*, and perhaps also the *b*, may point to Iranian influence. Cf further Rig-V. *prishant, prishatî*, besides *priśni*, Greek περκνος; Ath.-V. *ruśant*, beside Rig-V. *rush*.

(2) Vedic and Classical Sanskṛit usually preserve medial consonants, while the later Indo-Aryan dialects often drop intervocalic medial consonants; cf. *titau*, 'a sieve,' *praüga* (Rig-V.) 'a fore-yoke,' which are probably loan-words from other Indo-Aryan dialects. The former the author connects with √*tak*, and the latter he refers to **prayuga*.

(3) In the later Indian dialects there is a tendency to change an intervocalic tenuis, and tenuis aspirata, into a media and media asp. respectively. Cf Rig-V. *nâdh* in *nâdhamâna, nâdhita, nâdhas* with the rarer *nâth* in *nâthita, anâtha*. In the Ath.-V. *nâth* (*nâthita, nâtha*) is the more common. Other documents (Vedic as well as Classical Sanskrit) appear to know only *nâth* (except perhaps in *vayônâdha*). Pâli has likewise *nâtha*. Prâkṛit has *nâdha* and *nâha*. Here it seems probable that the Pâli and Sanskṛit have preserved the older form, while the Rig-V. prefers a form influenced by a popular dialect. Again, cf Rig.-V. *árbhaga* with *arbhakà*: √ *tuj, tuji* (RV) with √ *tuch, tôka*, &c; *karta* (RV, AV) with *garta* (first appearing in the *Brâhmaṇas*).

(4) In the old literary language, a dental became a cerebral only under the influence of certain special sounds. A dental explosive became cerebralized through the influence of a preceding original *sh*, **zh*, or **l*. The dental nasal was also cerebralized under the influence of a preceding *r*-sound. In the more modern dialects, the cerebralization of a dental occurs under a much wider range of circumstances. Dental explosives are cerebralized under the influence of an *r*-sound also, and even without any apparent reason, beyond the tendency of some dialects towards cerebralization. Still more prominent is the general tendency to cerebralize the dental nasal. This kind of cerebralization of a dental can in the cases of certain words be pointed out in the Rig-V. We find *kâṭa* (Prâkṛit form of *kartas*), *kaṭya*; *naḍa*, cf. *nâḍî* (later *naḍa*; Pâli, *naḷa, naḷi, nâḷi, nâḷî, nâḷi*, beside *naḍa*): again *kêvaṭa* (Rig-V); *avaṭa* (Ath.-V.), beside *avata* (RV); *markaṭa* (VS, TS); in all of which there is possibly a change of dental (suffix *ta*) to a cerebral. These changes are still more frequent in the later language; cf. *bhaṇ* beside (RV) *bhan*; *aṭ* beside (RV) *at*; *naṭ* beside *nart, nṛit* The conjecture is not unreasonable that the forms in which the cerebral appears have arisen from the influence of Indo-Aryan popular dialects.

(5) The old literary language of India, the Classical as well as the Vedic Sanskṛit, retained, we know, the old *r* vowel in its entirety The remaining Indo-Aryan languages agree, on the contrary, in endeavouring to rid themselves of it, in consequence of which the *r*-sound usually entirely disappears, and another short vowel, *a, i*, or *u*, enters into its place. We find analogous examples in the *Rig-Vêda*; *e. g. gêha* beside *griha*; *êdh, êdhatê*, beside *ardh, ridh*; so also perhaps *jêh*, beside *jrambh jrimbh* (cf *jrimbha* and (RV) *hêsh*, to be referred to **hrish* Here *ri* is represented by *ê*, and not by *a, i*, or *u*. The later dialects, however, sometimes have *ê*, thus (Pâli and Prâkṛit) *geha*, beside *giha, ghara*, *edh* occurs in Pâli, beside *idh, ijjhati, iddhi*, Prâkṛit *iddhi*; *hêsh* appears in Pâli and Prâkṛit regularly as *hes*. If *jêh* in *Rig-Vêda* is to be referred to

*jṛibh, jṛimbh. Prâkṛit has preserved the fuller form *jambh, jimbh* (= *jṛimbh*): cf. also Pr. *genh-* = Skr *grihṇâti*, beside the Pâli *gaṇh-*; Pâli, *gedha*, 'greed,' 'desire,' Skr. *gardh, griddh* beside *gidh, gijjhati, giddhin*, 'greedy' cf. *gijjha, gaddha*, 'vulture': in Prâkṛit *venta, tâlavanta* beside Skr. *vṛinta, tâlavṛinta*, Pâli, *vanta, tâlaventa*.

The author then proceeds to discuss the conditions of this change of *ṛi* to *e*, which appears to him to probably depend upon the near presence of the letter *h*. Moreover, the *e* appears to have been originally short.

He then continues, that, although some of the forms above quoted may be the subject of discussion, most of them should be accepted as loan-words into Vedic or Classical Sanskrit, taken from other Indo-Aryan dialects. There are other words also which occur in the *Rig-Vêda*, which the author enumerates, which may also be similarly explained, though without the same amount of evidence, and he finally concludes this portion of his essay by answering his second question in the affirmative.

This brings us to the third and last question, 'Is the change of an intervocalic *dh* or *bh* to *h* one of the sound-tendencies which are specially frequent in the later Indo-Aryan dialects?'

In Pâli *dh* and *bh* usually remain unchanged, though forms with *h* are not uncommon. In Prâkṛit the change to *h* is much more common. In the modern dialects it is the rule. He takes the following typical cases:—

VEDIC SANSKRIT—

(1) The case endings, *-bhis-, bhyas* (*-bhias*), *-bhyâm* (*-bhiâm*) added to a vocalic stem termination.

(2) The words, *nabhas, ṛibhu, surabhi, nâbhi, sabhâ, ibha, ubha, abhi, ûdhan, vadhû, ôshadhi, adhi, adhas*; *adhara, adhama*

(3) The suffix *-bha*, *e.g.* in *ṛishabha, vṛishabha*.

PÂLI—

(1) *-hi*, rarely—*bhi*.

(2) *nabha, surabhi, nâbhi, sabhâ, ibha, ubha, ubhaya, abhi*; *vadhû, osadhî, adhi, adho, adhara, adhama*.

(3) *usabha, vasabha*.

PRÂKṚIT—

(1) *-hi, him*.

(2) See Hêmachandra, I. 187. A., Kalpasûtra, (*a*) *naha* and *nabha, surabhi* (°*hi*), *nâbhi, sabhâ, ibha, ubhas, ubhaya, abhi*; (*b*) *ahi, ahe, ahara*. B., Hâla, (*a*) *naha, surahi* and *surabhi, nâhi, uhaa, ahi*; (*b*) *vaihû, osaha, ahi, ahara*. C., Sêtubandha. (*a*) *naha, surahi, nâhi, sahâ, uhaa, ahi*; (*b*) *vahu, osahi, ahi, aho, ahara*.

(3) Cf. Hêm. *usaha, vasaha, risaha, gaddha, gadduha*. A., *usabha* (°*ha*), *vasabha* (°*ha*). B., *usaha, vasaha* C., *vasaha*.

In the forms, in which in the *Rig-Vêda h* = old *dh, bh* occurs, we find in Pâli and Pr. regularly *h*. To the forms quoted above (*-mahê, -mahi*; *-hi* beside *-dhi*; *hita* beside *dhâ* and *-dhita*; *rôhita* beside *rudhira*; *ruh*, beside *rudh, virudh*; *griha*, (Gothic) *gards*; *grah—grabh*; *kakuha—kakubh*, may now be added *nah—nadh*; *gâh—gâdha*; *gahana—gabhîra*; and (?) *jêh—jṛimbh*. Here it is interesting to observe that in those forms in which Sanskrit has preserved the old *dh, bh*, the mediæval dialects often show *h*. Rarest again in Pâli, where we have *rudhira* beside *rohita, virâdhanaka* beside *rûhati*; but also indeed *dahati* (*dadhâti*). In Prâkṛit we find *gahira* beside *gambhîra, ruhira* = Skr. *rudhira*. After dealing with possible objections, the author concludes that at least it is not rash to affirm that **the occurrence of h in the Vêda for an old dh, bh, is due to the influence of contemporary popular dialects.** There are, however, various considerations which prevent our making any more positive statement, and these he proceeds to discuss. This portion I omit, to save space. The author can only hope that he has pointed out the direction in which the truth may be found.

This article is followed by some **remarks by Professor Bühler on Dr. Böhtlingk's articles on Vasishṭha.** The paper deals with textual criticisms and with the translation of certain doubtful passages.

This is followed **by a short paper by Dr. Bartholomae on the transcription of Indo-Iranian sibilants.** He argues for a systematic and uniform treatment of these letters in Sanskrit and Zend transliteration.

Dr. A. Hillebrandt discusses the translation of the eighth verse in Ṛig-Vêda, X. 18. The hitherto accepted translation has been—

'Raise thyself, O woman, to the world of life;
'Thou liest before (or by) him whose breath hath flown: Come;
'Who once clasped thine hand and wooed thee,
'The wedlock of thy spouse hast thou now accomplished.'

The author says that the only possible literal translation is—

'Raise thyself, O woman, to the world of the living,
'By a dead man liest thou here. Come hither;

'He who hath wedded thee and wooed thee,

'Here hast thou obtained the wifehood of thy spouse' (*i.e.* thou hast become his wife).

Dr. Hillebrandt maintains that the corpse referred to is not the woman's dead husband. The verse, he considers, refers to a portion of the ritual of a **human sacrifice**, in which a woman lays herself down by the dead man, in order to obtain symbolic fruitfulness.

Dr. A. Ludwig contributes two short papers. The first on three passages in the *Rig-Vêda*.

(*a*) *Rig-Vêda* X., 38. 5, *mushkayôr baddhah*, usually translated '*testiculis vinctus*.' Dr. Ludwig shows that *mushka* must mean 'fist,' cf. the Hindî *mushkên bândhnâ*, 'to tie the hands behind the back.'

(*b*) X., 73, 9. *payô gôshâ ádadhâ ôshadhîshû*. The question is, why has *ádadhâ* the *udâtta*. It depends on the translation, which should be literally, 'thou gavest the milk to the cow-resembling vegetables.' In order to show the isolation rendered necessary by the metre (of *adadhâ* from its object, *payah*, and also the splitting asunder of one complete expression *gôshâ ôshadhîshû*, the editors of the text furnished *adadhâ* with an *udâtta*.

(*c*) X., 95. 1, *hayê jâyê manasâ tishtha ghôrê*. Why has *tishtha* the *udâtta*? Similarly it is explained by taking *jâyê* as 1 sing. with *manasâ*, and translating, "Ha! I come to recollection, stand still, O terrible one."

The second article deals with the meanings of special Vedic words.

The Part next contains reviews of

(1) *Friedr. Delitzsch, Prolegomena eines neuen hebräisch-aramäischen Wörterbuchs zum alten Testament.* Review by Prof. Nöldeke.

(2) *The Massorah compiled from manuscripts alphabetically and lexically arranged by Christian D. Ginsburg.* Review by Dr. S. Baer.

(3) *Bihâr Peasant Life.* Review by Dr. Pischel.

(4) *Hans Schiltberger's Reisebuch.* Reviewed by Dr. F. Liebrecht.

(5) *Merx, Proben der syrischen Uebersetzung von Galenus-Schrift über die einfachen Heilmittel.* Notes by Dr. Immanuel Löw.

Prof. A. Müller forwards a communication from Dr. Vollers regarding the **Catalogue of the Arabic Manuscripts at Cairo.**

Dr. Roth contributes a note on the *Bibliotheca Indica*, and urges the completion of the *Saṁhitâ of the Black Yajur Vêda*, and of the *Taittirîya Brâhmaṇa*.

G. A. GRIERSON.

VIKRAMA DATES IN A MANUSCRIPT OF THE MAHABHASHYA.

In an excellent **Manuscript of the Mahâbhâshya**, which I obtained from Gujarât and purchased for the Government of Bombay in 1881, the copyist has recorded the days on which he finished various portions of his work, **in the following seven dates:—**

(1).—On Fol. 7*b*.—Saṁvat 1545 varshê Śrâvana śu di. 10 Budhê; *i.e.* in the year 1545, on the 10th day of the bright half of Śrâvana on **Wednesday**.

(2).—On Fol. 58*a*.—Saṁvat 1545 varshê Bhâdrapada-mâsê krishna-pakshê 3 tritiyâyâṁ tithau Ravi-dinê; *i.e.* in the year 1545, in the month Bhâdrapada, in the dark half, on the 3rd, on the third lunar day, on **Sunday**.

(3).—On Fol. 80*a*:—Saṁvat 1545 varshe Ishê mâse sitê pakshê 10 daśamyâṁ tithau Ravi-dinê, *i.e.* in the year 1545, in the month Isha (or Âśvina), in the bright half, on the 10th, on the tenth lunar day, on **Sunday**.

(4).—On Fol. 107*b*.—Saṁvat 1546 varshê Kârttika śu di. 4 Budhê; *i.e.* in the year 1546, on the 4th day of the bright half of Kârttika, on **Wednesday**.

(5).—On Fol. 128*a*:—Saṁvat 1546 varshê Kârttika śu. di 13 Śukrê; *i.e.* in the year 1546, on the 13th day of the bright half of Kârttika, on **Friday**.

(6).—On Fol. 176*b*:—Saṁvat 1546 Mârga śu. di. 12 Śukrê; *i.e.* the year 1546, on the 12th of the bright half of Mârgaśirsha, on **Friday**.

(7).—On Fol. 209*b*:—Saṁvat 1546 varshê Mârgaśîrsha-mâsê krishṇa-pakshê 8 ashtamyâṁ Bhauma-dinê; *i.e.* in the year 1546, in the month Mârgaśirsha, in the dark half, on the 8th, on the eighth (lunar day), on **Tuesday**.

The interest of these dates lies in this, that they furnish sufficient *data* for calculating seven consecutive dates, given by one and the same careful writer, of which the latest date is not five months distant from the earliest, and the difficulty presented by them, and which induces me to make these dates public, is, that one of their number apparently does not work out properly, while for at least five of them the corresponding European dates may be given with absolute certainty.

A comparison of the dates (3) and (4), of which the former gives a day of the month Âśvina of the year 1545, and the latter a day of the month Kârttika of the *following* year 1546, shows at once that the years we are concerned with, are **southern Vikrama years**, beginning with the month Kârttika. And a comparison of the dates (6) and (7), of which the former gives a day of the bright half of the month Mârgaśirsha, while the

latter gives a day of the dark half of *the same* month Mârgaśirsha, would further prove, if such proof were at all necessary, that we have to deal with a **southern year, with the regular amânta arrangement of the lunar fortnights.** Considering that the MS. was written in Gujarât, this is only what we should expect.

Taking the years 1545 and 1546 as **expired years,** the corresponding European dates for (2), (3), (5), (6), and (7) are:—

(2). **Sunday,** September 13, A.D. 1489: the 3rd *tithi* of the dark half ended 2 h. 29 m. after mean sunrise.

(3). **Sunday,** October 4, A.D. 1489; the 10th *tithi* of the bright half ended 6 h. 46 m. after mean sunrise.

(5). **Friday,** November 6, A.D. 1489: the 13th *tithi* of the bright half ended 4 h. 53 m. after mean sunrise.

(6). **Friday,** December 4, A.D. 1489: the 12th *tithi* of the bright half ended 20 h. 45 m. after mean sunrise.

(7). **Tuesday,** December 15, A.D. 1489: the 8th *tithi* of the dark half ended 22 h. 11 m. after mean sunrise (and it commenced 1 h. 25 m. before mean sunrise).

As regards (4), I find that the 4th *tithi* of the bright half of Kârttika, of 1546 expired, ended 30 minutes *before* mean sunrise of Wednesday, October 28, A.D. 1489; but considering that the *tithi* ended so near sunrise, and that the day required *would* come, under ordinary circumstances, nine days before Friday, November 6, the day of date (5), I have no doubt that, in Gujarât, **Wednesday,** October 28, A.D. 1489, *was* the 4th of the bright half of Kârttika.

But I am unable to make out how the date mentioned under (1) should have fallen on a Wednesday. For in A.D. 1489, the 10th *tithi* of the bright half of Srâvana *began* 9 h. 15 m. after mean sunrise of Wednesday, August 5th, and *ended* 7 h. 16 m. after mean sunrise of Thursday, August 6th, and the date corresponding to Srâvana su. di. 10 accordingly should be **Thursday, August 6th,** not Wednesday, August 5th. Or can it be shown that, for any reason unknown to me, the case should have been otherwise?

F. KIELHORN.

Gottingen.

AN ORIGIN FOR THE BIBLICAL NAME RHAGES.

SIR,—An interesting note on the origin of **Rai**—called **Rhages** in the Bible will be found in the "*Burhân-i-Qâte'*," printed edition of Calcutta A.D. 1818, page 415, under the word راج (Raj) and page 442 under the word ری Rai'. According to this note it appears that it is a district near Sabzwar and that a town was founded there by two brothers called Rai and Râj, and that when completed they quarrelled as to which of them should give the place his name. Finally it was decided that the place should be called Rai after one brother and its people Râji after the other.

Teheran. S. J. A. CHURCHILL.

SIR,—In page 370, Vol. II. of the *Indian Antiquary* (December, 1873), I find that a correspondent, Pudma Nav Ghosal, in attempting to prove that Calcutta is a place known from remote antiquity, and that the modern name is a corruption of "Kalik-shetra," quotes the following in a footnote, without citing his authority:—

"*Dakhinashar maravga yabacha Bahoola pooree Kal kshetram beejaneeyath,*" &c.

Will any of your numerous readers and correspondents give the full text and correct reading of the quotation, and the name of the *purana* or other book from whence it is taken?

NILCAWAL BASAK.

16, *Chorrookdanga Street Calcutta.*

MAKHZAN UL ADVIYEH.

SIR,—General Houtum-Schindler in his note on the *Acacia ante*, p. 143, mentions the medical dictionary called **Makhzan-ul-adviyeh** the author of which is Mir Muhammed Husain Khan ul-'Aqilî ul-'Alavî son of Hakîm Muhammad Hâdi Khan ul-'Aqîlî ul Khorâsânî, residing at Shiraz. Muhammed Husain Khân, apparently, wrote the portion treating of simple medicaments himself. He first, in A.H. 1183 commenced the work in Arabic, but certain obstacles to its completion arising in A.H. 1185, at the request of his master, Mir Muhammed 'Alî ul Husain, he began the present work in Persian. The first volume, on simples, is divided into a *muqaddimeh* of 11 *fasls* and the subject matter in alphabetical order, followed by a *khâtimeh* containing a glossary of the technical terms. According to *fasl* 11 of the introduction to this volume, Muhammad Hâdi Khân would appear to be the author's grandfather, and his father would appear to be Hakîm Mir Muhammed Hâshim styled Mo'atamed ul-Muluk 'Alavî Khân; although it may more probably be that Muhammed Husain Khân is the son of Muhammed Hadi Khân whose father is Muhammed Hâshim Khan, whose father may possibly also have been called Muhammed Hâdi Khân. This volume has been lithographed by itself at Bombay A.H. 1273.

Muhammed Husain Khan, at the request of his master, the same Mir Muhammed 'Ali, collected the notes of his grandfather, Mir Muhammed

Hâshim styled Mo'atamed ul-Mulûk, on compound medicaments and compiled a *qarâbâdîn*, called: قرابادین مجمع الجوامع و دخائر التراکیب divided into a *muqaddimeh* subdivided into 20 *fasls*, and the dictionary of compound drugs in alphabetical order in twenty-eight *kitâbs*, or books.

The *Makhzan-ul-Advîyeh* and the *Qarâbâdîn*, the two volumes in one, were lithographed at Teheran in 1277 A H. The *Qarâbâdîn* has been twice printed in India (Calcutta ?) A.H 1248-49 and 1254-55

S. J. A. C.

NOTES AND QUERIES.

SUPERSTITION AS TO CIRCUMCISION AMONGST THE MALAYS.

Among the Malays, if an uncircumcised boy is eating with a party of men and the gizzard of a fowl, in some dish or other, falls to his share, it will at once give rise to remark. He will be told not to eat it lest his skin should be tough and he be caused extra suffering when he submits to the rite of circumcision

W. E. M.

BOOK NOTICE.

GENERAL INDEX TO THE REPORTS OF THE ARCHÆOLOGICAL SURVEY OF INDIA, VOLS. I. TO XXIII. by V. A. SMITH, B.C.S. Printed by the Superintendent of Government Printing, India. Calcutta. 1887. Royal 8vo; pp. xviii., 216.

We regret that we have not been able to notice before now **Mr. V. A. Smith's most valuable addition to the Reports of the Archæological Survey of India, in the shape of a General Index to Vols. I. to XXIII.,**—the whole series of Reports issued by, or under the direction of, General Sir A. Cunningham,—**with a Glossary and General Table of Contents.**

As remarked by the Compiler of this Index in his Preface, everyone who has had occasion to consult the Reports in question must have felt **the want of a General Index,** such as has now been made available. "The Reports contain a vast mass of "valuable information, but it is presented in "such an undigested form that much of it is "practically inaccessible. Each volume is cer- "tainly provided with an Index, but these Indices "are, with two exceptions, extremely meagre, and "of very little service" Under these circumstances the present Index was undertaken, with Gen Sir A Cunningham's approval. And we find every reason for congratulating Mr. V. A. Smith on the results of his work, which will greatly enhance the utility and value of the series of Reports

The **Index** does not aim at giving a reference for every proper name mentioned in the Reports, or for every topic discussed in them For instance, Mr. V A. Smith has very wisely passed over, with but very little notice, "the crude and "unscientific speculations of General Cunning- "ham's assistants, which waste so much space in "several volumes of the Reports," and which ought, in fact, never to have been allowed to appear in print at all. But, excluding matter of this kind, and bearing in mind that the large number of reports to be indexed in a single volume rendered it necessary to avoid many minor entries, such as subordinate and almost unknown dynastic names which must be traced by referring to the dynasties concerned, the Index appears to render easy for the first time a reference to nearly everything in these Reports that is worth turning up. And by no means the least important feature in it, is, that, with the help of maps and gazetteers, the Compiler has remedied in almost every instance what was a most serious and inconvenient defect in the Reports themselves, *viz.,* the omission to give full and definite details, by reference to districts, sub-divisions, &c., as to the exact localities at which epigraphical, architectural, and other remains are to be found, if still *in situ*, or as to the exact places at which such remains, and especially coins, were originally found, though, having been since removed into public and private collections, they are not now to be looked for there.

The short **Glossary,** at the end of the book, is intended to explain Oriental words, used in the Reports, for the benefit of readers who have not resided in India, and to whom therefore they would ordinarily be unintelligible; and, as far as it goes, it is a serviceable addition.

One of the most useful parts of the book is the **General Table of Contents,** pp. vii to xviii, which reproduces, with some additions, the Table of Contents of each separate volume, and thus shows almost as a glance where we have to look for the detailed accounts of the various places described in each Reports.

THE USE OF THE TWELVE-YEAR CYCLE OF JUPITER IN RECORDS OF THE EARLY GUPTA PERIOD.

BY J. F. FLEET, Bo.C.S., M.R.A.S., C.I.E.

IN the determination of A.D. 319-20 as the epoch, and A.D. 320-21 as the commencement or first current year, of the so-called Gupta era, one of the most interesting and important subjects of inquiry is **the use of the Twelve-Year Cycle of Jupiter in the dates of some of the records of the Early Gupta period.**

These dates are found in **the inscriptions of the Parivrâjaka Mahârâjas Hastin and Saṁkshôbha,** *Corp. Inscr. Indic.* Vol. III. "The Gupta Inscriptions," No. 21, page 93, to No. 25, page 112. And the extreme value of the records, from the present point of view, is due to the fact that in each instance, except in the Bhumarâ pillar inscription,[1] No. 24, page 110, the date is directly connected with an expression which shews explicitly that, at the time mentioned, the Gupta sovereignty was still enduring; and, consequently,—since the figures of the years are naturally referable to the same uniform series with the years quoted in the records of the Early Guptas themselves; and since the palæography of the inscriptions is entirely in favour of such a reference,—which shews also that **the dates are recorded in the identical era that was used by the Early Gupta kings.**

In connection specially with the epochs of A.D. 166-67 proposed by Gen. Sir A. Cunningham, and of A.D. 190-91 proposed by Sir E. Clive Bayley, **the evidence derivable from these records has hitherto been completely misapplied**; in consequence of the adoption of the view that the duration of any *saṁvatsara* or year of this cycle, is the same with that of the years of the Saka era, from Chaitra śukla 1 to the *pûrṇimânta* Chaitra krishṇa 15; and that the means of exactly determining the *saṁvatsaras* of this cycle are provided by the last remainder obtained from certain rules given by Varâhamihira and others, which in reality only shews what *saṁvatsara* of the Sixty-Year Cycle of the same planet according to the so-called northern system, and of the Twelve-Year Cycle according to the mean-sign system, is current at the commencement of any given Saka or Kaliyuga year, and which does not provide for the determination of the *saṁvatsaras* on any other given date in the year.[2]

The correct theory of the cycle, according to the requirements of the heliacal-rising system actually applied in the records now under consideration, with the proper method of determining each of the *saṁvatsaras*, **has now been demonstrated by Mr. Sh. B. Dikshit,** in his paper which is published at pages 1ff. and 312ff. above. And, by calculations based on the *Sûrya-Siddhânta*, he has worked out all the results required for a full treatment of the dates in question; giving the full English and Hindu dates throughout, in order that both European and Hindu astronomers may be in a position to easily check his results. In publishing his results, I am confident that no essential errors can be established in them, even though it should be shewn, by more exhaustive calculations, that his longitudes for the heliacal risings of Jupiter are capable of slight corrections.[3] And, as will be seen, **his results shew that,** with the epoch of A.D. 319-20, with the running difference of two hundred and forty two years between current Gupta and current Saka years, and with the treatment of the Gupta

[1] This inscription is a joint record of the Parivrâjaka *Mahârâja* Hastin, and of the *Mahârâja* Śarvanâtha of Uchchakalpa, defining one point of the boundary between their territories. And the understanding that, while the Parivrâjaka *Mahârâjas* were feudatories of later members of the Early Gupta dynasty, the *Mahârâjas* of Uchchakalpa, whose territories evidently lay more to the east and south-east, were feudatories of early kings of the dynasty which eventually came to be known as the Kalachuri dynasty of the Chêdi country in Central India, would explain at once why no era is quoted in this record, the reason being that the feudatories of the two rival dynasties could not agree as to which of the two rival eras,—the Gupta era, and the Kalachuri or Chêdi era,—should be used. For further remarks on this point, see *Corp. Inscr. Indic.* Vol. III. Introd. p. 8 ff.

[2] See, for instance, *Indian Eras*, p. 26 ff.—This interpretation of the rules in question leaves unutilized, and unexplained, the first remainder, obtained from the division by 3750 according to Varâhamihira's rule, and by 1875 according to the rule of the *Jyotisha* [illegible]. In connection with the *Jyotisha* rule, however, Warren has shewn (*Kâla-Saṅkalita*, p. 202) how this remainder gives the means of determining the actual commencement of each *saṁvatsara*.

[3] See, e.g., note 11 below.

year as a northern Saka year commencing with Chaitra śukla 1, in each instance, by the heliacal-rising system, the given saṁvatsara actually was current on the given date.

That the other system of the Twelve-Year Cycle, the mean-sign system, according to which the *saṁvatsaras* are determined by the passage of Jupiter from one sign of the zodiac into another, does not apply to the dates in these records, with the epoch of A.D. 319-20, is shewn by the fact, as will be seen from the details for this system given below, that it gives correct results in only two cases out of the four by which any absolute proof can be established:[4] *viz.* in the case of the grant B. dated in Gupta-Saṁvat 163, and in the case of the grant C. dated in Gupta-Saṁvat 191.

For the proof that Gen. Sir A. Cunningham's and Sir E. Clive Bayley's proposed epochs cannot be supported, either by the heliacal-rising system, or by the mean-sign system, which is the one that they sought to apply in support of their theories, I must refer to the fuller treatment of these dates in *Corp. Inscr. Indic.* Vol. III. Introduction, page 101ff. The object of the present paper is only to shew how successfully the heliacal-rising system works out for these dates with the epoch of A.D. 319-20; and that the mean-sign system does not apply.

A.—The Khôh Grant of the year 156.

The first inscription is one of the Khôh grants of the Mahârâja Hastin, *Corp. Inscr. Indic.* Vol. III. No. 21, page 93; in which the date (line 1ff.) is—shaṭpañchâś-ôttarê=bda-śatê Gupta-nṛipa-rajya-bhuktau Mahâ-Vaiśâkha-saṁvatsarê Kârttika-mâsa-śukla-paksha-tṛitîyâyâm,—"in a century of years increased by the fifty-sixth (*year*); in the enjoyment of sovereignty by the Gupta kings: in the Mahâ-Vaiśâkha *saṁvatsara*; on the third lunar day of the bright fortnight of the month Kârttika."

This gives us, for calculation, the Mahâ-Vaiśâkha saṁvatsara, as current on the third *tithi* or lunar day of the bright fortnight of the month Karttika (October-November) in Gupta-Saṁvat 156 current. And, on the analogy of the Verâwal inscription[5] of Valabhî-Saṁvat 945, this should be the case in Gupta-Saṁvat 156 + 242 = Saka-Saṁvat 398 current:[6] in which year the given *tithi* corresponds to Sunday, the 19th October, A.D. 475.

Mr. Sh. B Dikshit finds (see the accompanying Table, Col. A) that Jupiter's rising,[7] next before the given date, took place on Kârttika śukla 1 of the same year, Saka-Saṁvat 398 current, corresponding to Friday, the 17th October, A.D. 475: or, by the English calendar, on Saturday, the 18th October.[8] His longitude then was 195° 24′. By both the systems of unequal spaces for the longitudes

[4] The date in the Bhumara pillar inscription, E below, furnishes no definite proof in itself, because the current Gupta year is not mentioned in it, and consequently the given *saṁvatsara* could be proved equally well for epochs differing by a year or more, on either side, from the exact epochs that are being considered. We can only test it, in so far as to see whether, under any particular circumstances, the system fails, through an omission of the given *saṁvatsara*.

[5] See page 210f. above.

[6] Here, and throughout, the year is treated as a northern year. But the details of these dates do not furnish any actual proof as to the *pûrṇimânta* or *amânta* arrangement of the lunar fortnights.

[7] *i.e.* throughout his heliacal rising. But the actual calculation is for his first daily rising after his becoming capable of rising heliacally.

[8] It must be borne in mind that the Hindu *tithi* is coupled with the week-day on which it ends, after sunrise; and that the Hindu week-day is reckoned, with the civil day and night, from sunrise to sunrise, but the English week-day, and the civil date coupled with it, from midnight to midnight. In comparing Hindu and English dates, the only course is to take mean sunrise and mean midnight as 6.0 a.m. and 12.0 p.m. respectively, and to give, as the English equivalent, that week-day, with its civil date, which is actually running during these eighteen hours, when of course the same week-day is running in India; *i.e.* the week-day which is identical for the greater part by both the English and the Hindu reckonings. And, if the difference in mean time between Greenwich and Ujjain, *viz.* 5 hours 2 minutes, 52 seconds (using the same longitude for Ujjain, 75° 43′, taken from Keith Johnston's Atlas, that is used by Mr. Sh. B. Dikshit for his calculations and for the *Sâyana-Pañchâṅga*) be taken into consideration, of course the week-days of the two places are absolutely identical except for the space of 57 minutes 8 seconds, or 2 *ghaṭîs* 22·8 *palas*, at the end of the Hindu week-day; during that time, while at Ujjain a Hindu Thursday, for instance, is still running, at Greenwich the week-day will be Friday. Owing to this there may sometimes be a nominal discrepancy in the resulting English week-day for a given *tithi*; but the instances will be few and far between, as very few *tithis* will be found to end so late after sunrise, and the discrepancy will be confined mostly to such occurrences as the rising of Jupiter.—Jupiter's daily rising, next after his becoming capable of rising heliacally, takes place about forty-four minutes before sunrise, and therefore in the period during which the Hindu and the English week-days are not identical. In the present case it took place at the time in question before sunrise on the English Saturday, the 18th October. Karttika sukla 2 did not end till after sunrise on that day. Consequently, as current *tithis* are not quoted, unless under certain very exceptional conditions not applicable to such occurrences as this, the *tithi* on which he rose was Kârttika śukla 1. And this *tithi*, ending after sunrise on the Friday (and before sunrise on the Saturday), has to be coupled with Friday, the 17th October, as its week-day. Hence the apparent, but not actual, difference of a day, according as we take the Hindu or the English calendar. And a similar difference runs through all the dates of the heliacal risings given below.

Saṁvatsaras of the Twelve-Year Cycle of Jupiter.

	A	B	C	D	E 1	E 2
Gupta year, current...........	156	163	191	209	189	201
Add the difference of..........	242	242	242	242	242	242
Śaka year, current..........	398	405	433	451	431	443
The given saṁvatsara	Mahâ-Vaiśâkha	Mahâ-Âśvayuja	Mahâ-Chaitra	Mahâ-Âśvayuja	Mahâ-Mâgha	Mahâ-Mâgha
The given date	Kârttika śukla 3	Chaitra śukla 2	Mâgha kṛishṇa 3	Chaitra śukla 13	Kârttika, 19th day	Kârttika, 19th day
Corresponding to	19th October, A.D. 475	7th March, A.D. 482	3rd January, A.D. 511	19th March, A.D. 528	13th October, A.D. 508	2nd October, A.D. 520
Jupiter's preceding rising was on......................	Kârttika śukla 1 of Śaka 398	Vaiśâkha kṛishṇa 6 of Śaka 401	Âśvina śukla 11 of Śaka 433	Chaitra śukla 12 of Śaka 451	Śrâvaṇa śukla 15 of Śaka 431	Bhâdrapada śukla 3 of Śaka 443
corresponding to	17th October, A.D. 475	5th April, A.D. 481	29th September, A.D. 510	18th March, A.D. 528	28th July, A.D. 508	2nd August, A.D. 520
English date ..	18th October	6th April	30th September	19th March	29th July	3rd August
,, longitude then was	195° 24′	4° 21′	177° 47′	347° 45′	117° 4′	121° 30′
,, position was in	Viśâkhâ	Aśvinî	Chitrâ	Rêvatî	Maghâ	Maghâ
And the saṁvatsara, which then began, was......	Mahâ-Vaiśâkha	Mahâ Âśvayuja	Mahâ-Chaitra	Mahâ-Âśvayuja	Mahâ-Mâgha	Mahâ-Mâgha
Jupiter's following rising was on....	Mârgaśîrsha śukla 13 of Śaka 399	Jyêshṭha śukla 8 of Śaka 405	Mârgaśîrsha kṛishṇa 7 of Śaka 434	Jyêshṭha śukla 3 of Śaka 452	Âśvina kṛishṇa 13 of Śaka 432	Âśvina kṛishṇa 1 of Śaka 441
corresponding to	15th November, A.D. 476	12th May, A.D. 482	29th October, A.D. 511	26th April, A.D. 529	29th August, A.D. 509	3rd September, A.D. 521
English date ..	16th November	13th May	30th October	27th April	30th August	4th September
,, longitude than was	225° 35′	40° 34′	207° 41′	24° 36′	147° 49′	152° 17′
,, position was in	Jyêshṭhâ	Rôhiṇî	Viśâkhâ	Kṛittikâ	Uttarâ-Phalgunî	Uttarâ-Phalgunî
And the saṁvatsara, which then began, was.....	Mahâ-Jyêshṭha	Mahâ-Kârttika	Mahâ-Vaiśâkha	Mahâ-Kârttika	Mahâ-Phâlguna	Mahâ-Phâlguna

of the ending-points of the *nakshatras* (see page 3 above, Table II.), he was then in Viśâkhâ; and the *saṁvatsara* which then began (see page 3 above, Table I.), must have been named **Mahâ-Vaiśâkha.**[9] Jupiter's next following rising took place on Mârgaśîrsha śukla 13 of Śaka-Saṁvat 399, corresponding to Monday, the 15th November, A.D. 476; or, by the English calendar, on Tuesday, the 16th November. His longitude then was 225° 35'. By the Brahma-Siddhânta system of unequal spaces, he was then in Jyêshṭhâ; and the *saṁvatsara* which then began, must have been named Mahâ-Jyêshṭha. While, by the Garga system of unequal spaces, he was then in Anurâdhâ; and the *saṁvatsara* which then began, must have again been named Mahâ-Vaiśâkha; which shews that, by this system, there was at this period a repetition of a *saṁvatsara*. This difference as to the following *saṁvatsara*, however, does not affect the given date. By both the systems of unequal spaces, with the running difference of two hundred and forty-two years between current Gupta and current Śaka years, **the Mahâ-Vaiśâkha saṁvatsara was current on the given date.** And the result gives Śaka-Saṁvat 398 current (A.D. 475-76), as the equivalent of the given current Gupta year.

In connection with the results for this record, **the following two points** may be noted here. In the first place, Mr. Sh. B. Dikshit has described three systems of fixing the ending-points of the *nakshatras*; one of equal spaces, and two of unequal spaces. An examination of Jupiter's longitudes, as given in the accompanying Table, for each rising next before the given dates, will shew that, in all the remaining instances, the current *saṁvatsara* is proved by all three systems; the only variation is that, in the case of E 1, Jupiter's position, at his rising next before the given date, was, by the system of equal spaces, in Âślêshâ; but, even then, the current *saṁvatsara* would be named Mahâ-Mâgha, as also by the two systems of unequal spaces. So, also, it may be seen that, by all three systems, we have almost the same results in respect of the following *saṁvatsaras*; the only variation is that, in the case of D., Jupiter's position, at his rising next after the given date, was by the system of equal spaces in Bharaṇî, and, accordingly, the *saṁvatsara* which then began, would again be named Mahâ-Âśvayuja; which shews that, by this system, there was a repetition of a *saṁvatsara* at this period; but this does not affect the *saṁvatsara* current on the given date. So far, therefore, as those dates are concerned, the correctness of the records might be proved by any of the three systems. The same, however, is not the case in respect of the present record. By the system of equal spaces, Jupiter's position, at his rising next before the given date, was in Svâti; the *saṁvatsara* which then began would be named Mahâ-Chaitra; and the Mahâ-Vaiśâkha *saṁvatsara* would not begin till Jupiter's rising next after the given date, when, by the same system, his position was in Anurâdhâ. Accordingly, the system of equal spaces could be applied to the present record, only with a running difference of two hundred and forty-three years between current Gupta and current Śaka years; which would be in contradiction with the fact that, to prove the *saṁvatsaras* of all the remaining records, it must be applied with the running difference of two hundred and forty-two years. It is evident, therefore, that, in dealing with these records, the system of equal spaces is not the correct one; and that **we have to apply one or other of the systems of unequal spaces.** This, however, is only natural; for they are both more ancient than the system of equal spaces; and, the older the system, the greater the certainty that it is the one in use in the Early Gupta period. Also, the Dêôgaḍh inscription of king Bhôjadêva of Kanauj, dated Śaka-Saṁvat 784, indicates very plainly that one or other of the systems of unequal spaces, if not both of them, continued in use, in what had formed a part of the Early Gupta territory, down to at least the last half of the ninth century A.D.[10] Of the

[9] I have not been able to obtain the original authority for the use of the prefix *mahâ* (*mahat*), 'great.' And it does not occur in connection with the two *saṁvatsaras* mentioned in the Halsi grants of the Kadamba chieftain Mṛigêśavarman, viz. the Pausha *saṁvatsara* in line 8 of the grant dated in his third year (*ante*, Vol. VII. p. 35), and the Vaiśâkha *saṁvatsara*, in line 10 of the grant dated in his eighth year (*ante*, Vol. VI. p. 24). I use the prefix, however, throughout, in accordance with the custom of the original records now under examination. —It occurs to me, as just possible that the use of the prefix belongs specially to the heliacal-rising system and that the absence of it denotes the application of the mean-sign system.

[10] See page 23 f. above.

two systems of unequal spaces, whether we are to apply the Brahma-Siddhânta system, or the still more ancient Garga system, cannot at present be decided: since the only variation between them is in respect of the *samvatsara* following the *samvatsara* which was current on the given date of the present record.

The other point is, that, as the following *samvatsara* did not commence till Mârgaśîrsha śukla 13 of Saka-Samvat 399, the Mahâ-Vaiśâkha *samvatsara* was still current on the given date, Karttika śukla 3, in Saka-Samvat 399, as well as in 398, which is the real equivalent for the Gupta year. So, also, it will be seen that, in the case of D., the Mahâ-Âśvayuja *samvatsara* was still current on the given date, Chaitra śukla 13, in Saka-Samvat 452, as well as in 451, which is the true equivalent for the Gupta year of that record. Consequently, these two dates, A. and D., might be used to support a running difference of two hundred and forty-three years between current Gupta and current Saka years, as well as the true running difference of two hundred and forty-two years. But, apart from the fact that we have not obtained anything else to support such a result, there is no such alternative in respect of B. and C.; the *samvatsaras* of these records are proved only with the running difference of two hundred and forty-two years. All the four cases together, therefore, not only answer to, but also **prove the running difference of two hundred and forty-two years between current Gupta and current Saka years.**

By the mean-sign system, the Mahâ-Vaiśakha *samvatsara* did not commence till Vaiśakha śukla 5 of Saka-Samvat 399 current, corresponding to Wednesday, the 14th April, A.D. 476; and consequently it was not current on the given date. The *samvatsara* then current was Mahâ-Chaitra, which commenced on Jyêshṭha krishṇa 13 of Saka-Samvat 398, corresponding to Saturday, the 19th April, A.D. 475.

B.—The Khôh Grant of the year 163.

The next inscription is **the other Khôh grant of the Mahârâja Hastin,** *Corp. Inscr. Indic.* Vol. III. No. 22, page 100, in which the date (line 1 f.) is — tri-shashty-uttarê=bda-śatê Gupta-nṛipa-râjya-bhuktau Mah-Âśvayuja-samvatsarê Chaitra-mâsa-śukla-paksha-dvitîyâyam,—"in a century of years, increased by sixty-three, in the enjoyment of sovereignty by the Gupta kings: in the Maha-Âśvayuja *samvatsara*; on the second lunar day of the bright fortnight of the month Chaitra."

This gives us, for calculation, the **Mahâ-Âsvayuja samvatsara,** as current on the second *tithi* or lunar day of the bright fortnight of the month Chaitra (March-April) in Gupta-Samvat 163 current. And, on the analogy of the Verawal inscription of Valabhî-Samvat 945, this should be the case in Gupta-Samvat 163 + 242 = Saka-Samvat 405 current, in which year the given *tithi* corresponds to Sunday, the 7th March, A.D. 482.

Mr. Sh. B. Dikshit finds (see the Table, Col. B.) that Jupiter's rising, next before the given date, took place[11] on Vaiśakha krishṇa 6 of the preceding year, Śaka-Samvat 404 current, corresponding to Sunday, the 5th April, A.D. 481, or, by the English calendar, on Monday, the 6th April. His longitude then was 4° 21′. By both the systems of unequal spaces,[12] he was then in Aśvinî: and the *samvatsara* which then began, must have been named **Mahâ-Âsvayuja.** Jupiter's next following rising took place on Jyêshṭha śukla 8 of Śaka-Samvat 405, corresponding to Wednesday, the 12th May, A.D. 482; or, by the English calendar, on Thursday, the 13th May. His longitude then was 40° 34′. By both the systems of unequal spaces, he was then in Rôhiṇî: and the *samvatsara* which then began, must have been named Maha-Karttika. Therefore, by both the systems of unequal spaces, with the running difference of two hundred and forty-two years between current Gupta and current Saka years, **the Mahâ-Âsvayuja samvatsara was current on the given date.** And the result gives Saka-Samvat 405 current (A.D. 482-83), as the equivalent of the given current Gupta year.

[11] These calculations are not absolutely accurate: but the margin is so wide that there is no necessity for exact precision in this case. If there should be any difference at all between Jupiter's longitudes as found by Mr. Sh. B. Dikshit, and as capable of being determined with exact precision, it will amount only to a few minutes of arc; and the actual risings of Jupiter could differ from what he gives only by one or two days, with the result that Jupiter may have risen, in this instance, on Vaiśakha krishṇa 5 or 7.

[12] Also by the system of equal spaces: but see the remarks under A. above. This point need not be noted in the following instances.

In this instance, the given *saṁvatsara* was not current on the given date in either the preceding year, Śaka-Saṁvat 404, or the following year, Śaka-Saṁvat 406. The result, therefore, not only answers to, but also **proves the running difference of two hundred and forty-two years between current Gupta and current Saka years.**

By the mean-sign system, the Mahâ-Âśvayuja *saṁvatsara* commenced on Chaitra śukla 8 of Saka-Saṁvat 404 current, corresponding to Tuesday, the 24th March, A.D. 481; and it was followed by Maha-Karttika on Chaitra śukla 15 of Śaka-Saṁvat 405, corresponding to Saturday, the 20th March, A.D. 482. Accordingly, by this system also **the Mahâ-Âśvayuja saṁvatsara was current on the given date.**

C.—The Majhgawâṁ Grant of the year 191.

The next inscription is the **Majhgawâṁ grant of the Mahârâja Hastin,** *Corp. Inscr. Indic.* Vol. III. No. 23, page 106, in which the date (line 1 f.) is — êka-navaty-uttarê=bda-śatê Gupta-nṛipa-râjya-bhuktau śrîmati pravardhamâna-Mahâ-Chaitra-saṁvatsarê Mâgha-mâsa-bahula-paksha-tṛitîyâyam,—"in a century of years increased by ninety-one; in the enjoyment of sovereignty by the Gupta kings; in the prosperous augmenting Mahâ-Chaitra *saṁvatsara*; on the third lunar day of the dark fortnight of the month Mâgha." And at the end, in line 21, the date is repeated as — Magha di 3—"(the month) Mâgha, the (civil) day 3."

This gives us, for calculation, the **Mahâ-Chaitra saṁvatsara,** as current on the third *tithi* or lunar day of the dark fortnight of the month Mâgha (January-February) in Gupta-Saṁvat 191 current. And, on the analogy of the Verawal inscription of Valabhî-Saṁvat 945, this should be the case in Gupta-Saṁvat 191 + 242 = Saka-Saṁvat 433 current; in which year the given date corresponds to Monday, the 3rd January, A.D. 511.

Mr. Sh. B. Dikshit finds (see the Table, Col. C.) that Jupiter's rising, next before the given date, took place on Âśvina śukla 11 of the same year, Saka-Saṁvat 433, corresponding to Wednesday, the 29th September, A.D. 510, or, by the English calendar, on Thursday, the 30th September. His longitude then was 177° 47′. By both the systems of unequal spaces, he was then in Chitrâ; and the *saṁvatsara* which then began, must have been named **Mahâ-Chaitra.** Jupiter's next following rising took place on Mârgaśîrsha krishṇa 7 of Saka-Saṁvat 434, corresponding to Saturday, the 29th October, A.D. 511; or, by the English calendar, on Sunday, the 30th October. His longitude then was 207° 41′. By both the systems of unequal spaces, he was then in Viśâkhâ; and the *saṁvatsara* which then began, must have been named Mahâ-Vaiśâkha. Therefore, by both the systems of unequal spaces, with the running difference of two hundred and forty-two years between current Gupta and current Saka years, **the Mahâ-Chaitra saṁvatsara was current on the given date.** And the result gives Śaka-Saṁvat 433 current (A.D. 510-11), as the equivalent of the given current Gupta year.

In this instance, again, as in B above, the given *saṁvatsara* was not current on the given date in either the preceding year, Śaka-Saṁvat 432, or the following year, Śaka-Saṁvat 434. Here again, therefore, the result not only answers to, but also **proves the running difference of two hundred and forty-two years between current Gupta and current Saka years.**

By the mean-sign system, the Mahâ-Chaitra *saṁvatsara* commenced on Mârgaśîrsha śukla 1 of Śaka-Saṁvat 433 current, corresponding to Thursday, the 18th November, A.D. 510; and it was followed by Maha-Vaiśakha on Margaśîrsha śukla 8 of Śaka-Saṁvat 434, corresponding to Monday, the 14th November, A.D. 511. Accordingly, by this system also **the Mahâ-Chaitra saṁvatsara was current on the given date.**

D.—The Khôh grant of the year 209.

The next inscription is the **Khôh grant of the Mahârâja Saṁkshôbha,** *Corp. Inscr. Indic.* Vol. III. No. 25, page 112, in which the date (line 1 ff.) is — nav-ôttarê=bda-śata-dvayê Gupta-nṛipa-râjya-bhuktau śrîmati pravardhamâna—vijaya-râjyê Mah-Âśvayuja-saṁvatsarê Chaitra-masa-śukla-paksha-trayôdaśyam, —"in two centuries of years increased by nine; in the enjoyment of sovereignty by the Gupta kings, in the glorious augmenting and victorious reign; in the Mahâ-Âśvayuja *saṁvatsara*, on the thirteenth lunar day of the bright

fortnight of the month Chaitra." And at the end, in line 24, the date is repeated as — Chaitra di 20 7—"(the month) Chaitra, the (civil) day 20 (*and*) 7."

This gives us, for calculation, the **Mahâ-Âśvayuja saṁvatsara,** as current on the thirteenth *tithi* or lunar day of the bright fortnight of Chaitra (March-April) in Gupta-Saṁvat 209 current. And, on the analogy of the Verâwal inscription of Valabhî-Saṁvat 945, this should be the case in Gupta-Saṁvat 209 + 242 = Saka-Saṁvat 451 current; in which year the given *tithi* corresponds to Sunday, the 19th March, A.D. 528.

Mr. Sh. B. Dikshit finds (see the Table, Col. D.) that Jupiter's rising, next before the given date, took place on Chaitra śukla 12 of the same year, Saka-Saṁvat 451, corresponding to Saturday, the 18th March, A.D. 528; or, by the English calendar, on Sunday, the 19th March; *i.e.* at the dawn immediately before the making of the grant.[13] His longitude then was 347° 45′. By both the systems of unequal spaces, he was then in Rêvatî: and the *saṁvatsara* which then began, must have been named **Mahâ-Âśvayuja.** Jupiter's next following rising took place on Jyêshṭha śukla 3 of Saka-Saṁvat 452, corresponding to Thursday, the 26th April, A.D. 529: or, by the English calendar, on Friday, the 27th April. His longitude then was 24° 35′. By both the systems of unequal spaces, he was then in Kṛittikà; and the *saṁvatsara* which then began, must have been named Mahâ-Kàrttika. Therefore, by both the systems of unequal spaces, with the running difference of two hundred and forty-two years between current Gupta and current Śaka years, **the Mahâ-Âśvayuja saṁvatsara was current on the given date.** And the result gives Saka-Saṁvat 451 current (A.D. 528-29), as the equivalent of the given current Gupta year.

As a matter of fact, the Mahâ-Âśvayuja *saṁvatsara* was still current on the given date, Chaitra śukla 13, in the following year, Saka-Saṁvat 452; as well as in Saka-Saṁvat 451, which is the real equivalent for the given Gupta year. Consequently, this record might be used to support a running difference of two hundred and forty-three years between current Gupta and current Saka years, as well as the true running difference of two hundred and forty-two years. But this possibility has been disposed of in my remarks on the date of A. above.

By the mean-sign system, the Mahâ-Âśvayuja *saṁvatsara* did not commence till Âśvina śukla 3 of Saka-Saṁvat 451 current, corresponding to Saturday, the 2nd September, A.D. 528; and consequently it was not current on the given date. The *saṁvatsara* then current was Maha-Bhâdrapada, which commenced on Bhadrapada kṛishṇa 11 of Śaka-Saṁvat 450, corresponding to Tuesday, the 7th September, A.D. 527.

E.—The Bhumarâ Pillar Inscription.

The last inscription of this series is the **Bhumarâ pillar inscription of the Mahârâjas Hastin and Sarvanâtha,** *Corp. Inscr. Indic.* Vol. III No. 24, page 110; in which the date (line 7 ff.) is — Mahâ-Maghê saṁvatsarê Kârttika-masa divasa 10 9.—" in the Mahâ-Mâgha *saṁvatsara*; the month Karttika; the (civil) day 10 (*and*) 9."

This gives us, for calculation, the **Mahâ-Mâgha-saṁvatsara,** as current on the nineteenth civil day of the month Kârttika (October-November); but the current year of the Gupta era is not given. The only guide, therefore, in determining the approximate Gupta year, for which the calculations should be made, is the fact that this inscription shews that the Parivrâjaka *Mahârâja* Hastin was, at the time of this record, contemporaneous with the *Mahârâja* Sarvanâtha of Uchchakalpa. For the *Mahârâja* Hastin, we have the extreme recorded dates of Gupta-Saṁvat 156 and 191; while, for the *Mahârâja* Sarvanâtha, we have similarly the dates of the years 193 and 214; and for his father, Jayanatha, the latest date of the year 177, all of which may have to be referred to the Gupta era. If so, the Maha-Magha *saṁvatsara* in question, — on the assumption that what should be its regular place in the series was not affected by any omissions and repetitions subsequent to the Mahâ-Vaiśakha *saṁvatsara* which was current on Kârttika śukla 3 in Gupta-Samvat 156,—must be found in or about Gupta-Samvat 189 or 201; with a preference in

[13] For this same reason, probably, the given date was specially selected for making the grant; since, the commencement of a *saṁvatsara* is regarded by Hindus as a very auspicious occasion.

favour of the year 189, because of the early date of the year 156 for the *Mahârâja* Hastin.

For Gupta-Saṁvat 189 + 242 = Saka-Saṁvat 431 current, the given date, *viz.* the nineteenth day of the month Kârttika, corresponds to Monday, the 13th October, A.D. 508. Mr. Sh. B. Dikshit finds (see the Table, Col. E 1) that Jupiter's rising, next before the given date, took place on Srâvaṇa śukla 15 of the same year, Saka-Saṁvat 431, corresponding to Monday, the 28th July, A.D. 508; or, by the English calendar, on Tuesday, the 29th July. His longitude then was 117° 4′. By both the systems of unequal spaces, he was then in Maghâ; and the *saṁvatsara* which then began, must have been named **Mahâ-Mâgha.** Jupiter's next following rising took place on Âśvina krishṇa 13 of Saka-Saṁvat 432, corresponding to Saturday, the 29th August, A.D. 509; or, by the English calendar, on Sunday, the 30th August. His longitude then was 147° 49′. By both the systems of unequal spaces he was then in Uttara-Phalguni; and the *saṁvatsara* which then began, must have been named Mahâ-Phalguna. Therefore, by both the systems of unequal spaces in Gupta-Saṁvat 189, with the running difference of two hundred and forty-two years between current Gupta and current Saka years, **the Mahâ-Mâgha saṁvatsara was current on the given date.** And this result gives Saka-Saṁvat 431 current (A.D. 508-509), as the equivalent of the possible current Gupta year.

Again, for Gupta-Saṁvat 201 + 242 = Saka-Saṁvat 443 current, the given date, *viz.* the nineteenth day of the month Kârttika, corresponds to Friday, the 2nd October, A.D. 520. Here Mr. Sh. B. Dikshit finds (see the Table, Col. E 2) that Jupiter's rising, next before the given date, took place on Bhadrapada śukla 3 of the same year, Saka-Saṁvat 443, corresponding to Sunday, the 2nd August, A.D. 520; or, by the English calendar, on Monday, the 3rd August. His longitude then was 121° 39′. By both the systems of unequal spaces, he was then in Maghâ; and the *saṁvatsara* which then began, must have been named **Mahâ-Mâgha.** Jupiter's next following rising took place on Âśvina krishṇa 1 of Saka-Saṁvat 444, corresponding to Friday, the 3rd September, A.D. 521; or, by the English calendar, on Saturday, the 4th September. His longitude then was 152° 17′. By both the systems of unequal spaces, he was then in Uttara-Phalguni; and the *saṁvatsara* which then began, must have been named Mahâ-Phalguna. Therefore, by both the systems of unequal spaces, in Gupta-Saṁvat 201 also, with the running difference of two hundred and forty-two years between current Gupta and current Saka years, **the Mahâ-Mâgha saṁvatsara was current on the given date.** And this result gives Saka-Saṁvat 443 current (A.D. 520-21), as the equivalent of the possible current Gupta year.

The results for these two years, Gupta-Saṁvat 189 and 201, answer, as is required, to the running difference of two hundred and forty-two years between current Gupta and current Saka years. But they do not, in themselves, prove it; for the reason that the current Gupta year itself is not mentioned in the record. The important point is, that in neither of these two cycles was the Maha-Mâgha *saṁvatsara* omitted.

If the dates in the grants of the *Mahârâjas* of Uchchakalpa are to be referred to the Kalachuri era,[14] then the Mahâ-Mâgha *saṁvatsara* of this record will be earlier by either one or two cycles than the first of the two years given above. Here, again, in respect of the actual epoch no absolute proof can be derived from this record; and the only important point is, to ascertain that the Maha-Magha *saṁvatsara* was not omitted in either of the two cycles in question. Mr. Sh. B. Dikshit finds that, in Gupta-Saṁvat 165 + 242 = Śaka-Saṁvat 407 current, Jupiter's rising took place on Śrâvaṇa śukla 10, corresponding to Thursday, the 19th July, A.D. 484, or, by the English calendar, on Friday, the 20th July. His longitude then was 108° 19′. By both the systems of unequal spaces, he was then in Âślêsha; and the *saṁvatsara* which then began, and which was current through the whole month of Kârttika in the same year, must have been named **Mahâ-Mâgha.** Again, in Gupta-Saṁvat 177 + 242 = Śaka-Saṁvat 419 current, Jupiter's rising took place on Bhadrapada krishṇa 13, corresponding to Wednesday, the 24th July,

[14] See note 1 above.

A.D. 496; or, by the English calendar, on Thursday, the 25th July. His longitude then was 112° 48′. By the Brahma-Siddhânta system of unequal spaces, he was then in Maghâ, and by the Garga system, in Âślêshâ; and, by both systems, the *saṁvatsara* which then began, and which was current through the whole month of Kârttika in the same year, must have been named **Mahâ-Mâgha.** Therefore, by both the systems of unequal spaces, in Gupta-Saṁvat 165 and 177 also, with the running difference of two hundred and forty-two years between current Gupta and current Śaka years, **the Mahâ-Mâgha saṁvatsara was current on the given date,** and was not omitted. And these results give either Śaka-Saṁvat 407 current (A.D. 484-85) or 419 current (A.D. 496-97), as the equivalent of the possible current Gupta year.

By the mean-sign system, in Gupta-Saṁvat 166 + 242 = Śaka-Saṁvat 408 current, the Mahâ-Mâgha *saṁvatsara* commenced on Chaitra śukla 5, corresponding to Thursday, the 7th March, A.D. 485; and it was current through the whole month of Kârttika in the same year; being followed by Mahâ-Phâlguna on Chaitra śukla 12 of Śaka-Saṁvat 409, corresponding to Monday, the 3rd March, A.D. 486. Again, in Gupta-Saṁvat 177 + 242 = Śaka-Saṁvat 419 current, the Mahâ-Mâgha *saṁvatsara* commenced on Phâlguna kṛishṇa 12, corresponding to Thursday, the 16th January, A.D. 497; and it was current through the whole month of Kârttika in Gupta-Saṁvat 178; being followed by Mahâ-Phâlguna on Mâgha śukla 4 of Śaka-Saṁvat 420, corresponding to Monday, the 12th January, A.D. 498. Again, in Gupta-Saṁvat 189 + 242 = Śaka-Saṁvat 431 current, the Mahâ-Mâgha *saṁvatsara* commenced on Pausha kṛishṇa 3, corresponding to Wednesday, the 26th November, A.D. 508; and it was current through the whole month of Kârttika in Gupta-Saṁvat 190; being followed by Mahâ-Phâlguna on Pausha kṛishṇa 9 of Śaka-Saṁvat 432, corresponding to Sunday, the 22nd November, A.D. 509. And thus, by this system also, **in Gupta-Saṁvat 166, 178, and 190, the Mahâ-Mâgha saṁvatsara was current on the given date.** But this was not the case in the next cycle. In Gupta-Saṁvat 201 + 242 = Śaka-Saṁvat 443 current, the Mahâ-Mâgha *saṁvatsara* commenced on Kârttika śukla 9, corresponding to Tuesday, the 6th October, A.D. 520, and falling four, five, or six days after the nineteenth day of the month; and it was followed by Mahâ-Phâlguna on Kârttika kṛishṇa 1 of Śaka-Saṁvat 444, corresponding to Saturday, the 2nd October, A.D. 521, and falling seventeen, eighteen, or nineteen days before the nineteenth day of the month. And thus, though the given *saṁvatsara* was not omitted, the given day did not fall within the limits of its duration.

WEBER'S SACRED LITERATURE OF THE JAINS.

TRANSLATED BY DR. HERBERT WEIR SMYTH.

(*Continued from p. 292*).

For the present at least it is quite uncertain how we are to understand this peculiar notice, or how we are to bring it into harmony with the position, which Vajra holds elsewhere in tradition, that is, as the last *daśapûrvin*—knower of (merely) ten *pûrvas*. After him there were only *navapûrvins*, and the knowledge of the *pûrvas* gradually decreased until it finally ceased altogether (p. 213). We can determine at least *this* with certainty—that a thorough-going difference existed between *aṅga* twelve and the other eleven. The hostility of the great Bhadrabâhu, who is held to be the real representative of the *dṛishṭivâda*, to the sacred *saṁgha* is apparent from other sources and from the late notice in Hêmachandra's *pariśishṭaparvan* (above, p. 214).[61] The reason for this enmity can be clearly discerned in the statements, which have been preserved in reference to the twelfth *aṅga*. It may be permitted here to refer to the discussion of the same later on. According to these statements, the first two of the five

[61] If Bhadrabâhu appears here and elsewhere, in the tradition, as the last teacher of the 14 *pûrvas*, which form an integral part of the *dṛishṭivâda*, and if with his pupil in the 14 *pûrvas*, Sthulabhadra, the mere knowledge of the last four *pûrvas* is said to have vanished this is in no greater agreement with the information derived from the *Siddhânta* itself (see above, p. 215) than with the above statements in reference to Vajra's activity in the case of the *dṛishṭivâda*. See above, page 215.

parts in which it was presumably divided, dealt with the views (*drishti*) of the heterodox sects, the *âjîviya* and the *têrâsia*[62] besides treating of other subjects [248]. The name *drishtivâda* may perhaps be explained by reference to this fact. The third part consisted of the so-called 14 *pûrvas*, the contents of which was probably not in entire harmony with the sect of the *Śvêtâmbaras*, which had gradually arrogated to itself the position of being the representative of orthodoxy. This then is perhaps the reason for the loss of the twelfth *aṅgam*.

The remaining extant eleven *aṅgas* by no means represent a unit, since they fall into several groups, the single members of which are marked by certain formal peculiarities, which prove a connection closer in the case of some than in that of others.

The first of those groups is formed by *aṅgas* 1—4, all the larger divisions of which close with the words *ti bêmi, iti bravîmi*; and according to the scholia, Sudharman, Mahâvîra's pupil, is regarded as the one who gives utterance to this formula. The prose portions begin with the formula: *suyaṁ mê âusaṁ! têṇaṁ bhagavayâ êvam akkhâyaṁ.* "I have heard, O long-lived one! Thus has that saint spoken." Sudharman is the speaker, according to the Scholia. In this formula,[63] which characterizes the contents as the oral transmission of the utterances of Mahâvîra, a scholar of Sudharman, *i.e.* Jambu, is the one addressed. This introductory formula is found also in other texts of the *Siddhânta* at the commencement of the prose sections; and with this the closing formula *ti bêmi* is generally connected. From this it appears to me that an immediate connection of these prose portions with the first four *aṅgas* is here *eo ipso* indicated, in so far as in all probability [249] all bear the traces of a unifying hand. In regard to the especial connection of *aṅgas* 1—3 with one another, this fact deserves mention: that in *aṅga* 4, 57 they appear as a group which belongs by itself or as the "three *gaṇipiḍagas*" (*âchâryasya sarvasvabhâjanâni*) κατ᾽ ἐξοχήν. *Aṅga* 4 is nothing but a continuation of *aṅga* 3, and in the very beginning is styled to be "the fourth *aṅga*."

A second group is formed by *aṅgas* 6—9 and 11, which in a common introductory formula refer on the one hand their contents directly to Suhamma or Jambu, and on the other are shown by other statements to have been united by one hand. See the remarks at the commencement of *aṅga* 6.

Aṅgas 7—9 appear to be connected by an especially close bond.

The fifth *aṅga* and the existing redaction of *aṅga* 10 are not embraced in either of these groups. *Aṅga* 10 belonged originally to the second group. It exists in a form demonstrably later and is composed in another dialect (Nom. Sing. in *ô*). The fifth *aṅga* takes a separate position, and begins in a very peculiar way. It possesses however one point of similarity with *aṅga* 6: *kârikâs*, which state the contents of what is to follow, are found with each larger section. These sections do not have in the case of this *aṅga* the title *ajjhayaṇa*, but are called *saya, śata.* The title of the *aṅga* itself has some connection with the titles of *upâṅgas* 5—7, and this fact makes plain that there is an inner connection between them.

That the reader may obtain a ready survey, I add the statements in reference to the extent of each of the *aṅgas* which are found [250] in the MSS. of each at the end. As stated above, page 231, the texts are divided into hundreds and thousands of granthas, *i.e.* groups of 32 syllables, and these are marked at the proper place (either by thousands or by five hundreds) or the collective number of the *granthas* is stated at the end. As a matter of fact the statements of the MSS. in reference to the number vary very frequently; which is to be referred to the greater or smaller number of omissions which have been made therein. We shall refer further on, under *aṅga* 4, to this matter again. The following are the numbers in question:—

1.2554 gr., — 2.2300, — 3.3750, — 4.1667, — 5.15750, — 6.5375, — 7.812, — 8.890, — 9.192, — 10.1300, — 11.1316.

In the case of several *aṅgas* at the close there are special statements in reference to the number of days necessary for the study or for the recitation of the *aṅga*—see *Bhagav.* 1, 377-8,—

[62] The traditional date for the foundation of this sect—544 after Vîra is exactly 374 years later than the date which is set for Bhadrabâhu the supposed last teacher of the 14 *pûrva*—(*Kâlasatts.* v. 37).

[63] This is explained in very different ways

a subject which is treated of at great length in the *Vidhiprapâ.*[64] I now proceed to an examination of each of the *anga* texts.

I. The first *anga* has, in its existing form, the name *âyâra, âchâra*, or *âyârapakappam*[65] and treats [251] in two *suakkhamdhas, śrutaskandhas* of the manner of life of a *bhikkhu.*[66] The first *śrutask., bambhachêrâim, brahmacharyâṇi*, contains at present eight *ajjhayaṇas* with 44 *uddêsagas*, the second: 16 *ajjh.* and 34 *udd.* It is however definitely stated that the first *śrutask.* contained previously not 8 but 9 *ajjh.* and the whole *anga* consequently not 24, but 25 *ajjh.* and not 78, but 85 *udd.* Cf. especially in *anga* 4 § 25 and § 85 and the detailed *résumé* of the 12 *anga* found both there and in the *Nandî.* In § 25, where the titles of the 25 *ajjh.* are enumerated one by one, we find the name *mahâparinnâ*, belonging to this *ajjh.* which is no longer extant, placed in the ninth place between 1, 8 and 2, 1[67*]; and the same circumstance may be noticed as occurring in *Âvaśy.* 16, 112 fg. More exact information is found in the *Vidhiprapâ* according to *Âvaśy.* 8, 46-49. Here we find that Vajrasvâmin (presumably 584 *Vîra*) extracted[68] from it the *âgâsagâminî vijjâ*; and from the fact that it contained exaggerations (?*sâisayattaṇêṇa*; according to Leumann, on account of the excellence of this extract) it was lost, or rather continued to exist only in the *nijjutti.* It was the opinion of Sîlamka (A.D. 876) that it occupied not the ninth but the eighth place.[69] This latter statement is incorrect,[70*] for [252] in the existing commentary of Śîlânka[71] the *mahâparinnâ*, which at and probably long before his time had been lost, is placed, not between 1, 7 and 1, 8, but between 1, 6 and 1, 7—that is to say in the seventh place. In the *Vidhiprapâ* there is probably a confusion with Abhayadêva, in whose commentary on *anga* 4—as also in the anonymous comm. on the *Nandî*—the *mahâparinnâ* keeps, it is true, the eighth place. The *nijjutti* then, which manifestly was still extant at the time of Jinaprabha, is probably identical with that *nijj.*, of which the author of the *Âvaśy. nijj.* declares (2, 5) that he is himself the composer; and which served specially as a basis to the comm. of Śîlâmka. The scholia everywhere preserve a knowledge of the ninth chapter. Furthermore the comm. on *chhêdas.* 1 in its opening still mentions nine *bambhachêrâṇi.*

The titles of the 8 extant *ajjh.* of the first *śrutaskandha* (V = *Vidhiprapâ*) are:

1. satthaparinnâ, śastraparijnâ, with 7 *udd.*;—in *udd.* 1 jîvatvam, jîvâstitvam sâmânyêna, in 2—7 *viśêshêṇa prithivîkâyâdyastitvam.* There are many references of a polemical nature to the *Sâkyas*, or Bauddhas, in 2. 3, according to the scholiast.

2. lôgavijaya, lôkasâravijaya, with 6 *udd.*; môkshâvâptihêtubhûtam châritram.

3. sîôsaṇijjam (sîusi°), śîtôshṇîyam, with 4 *udd.*; pratilômânulômaparîshahâḥ.

4. sammattam, [253] samyaktvam, with 4 *udd.*; samyagvâdaḥ, mithyâvâdabhûtatîrthikamatavichâraṇâ.

5. lôgasâra; in *anga* 4, 25, in *Âvaśy. nijj.* and in the schol. on *Nandîs.*: *âvamti*, according to the words of the commencement,[72] with 6 *udd.*; samyamaḥ môkshaś cha, munibhâvaḥ.

6. dhûyâ (dhûyam V), dhûtâ, with 5 *udd.*; nijakarmaśarîrôpakaraṇa . . v i d h û n a n ê n a niḥsamgatâ.

7. vimôha, vimôksha (?), with 8 *udd.*; samyag niryâṇam.

8. ôhâṇasuyam (uva° V), upadhânaśrutam,

---

[64] The names of the single *ajjhayaṇas* and the number of the *uddêsagas* etc. are specifically enumerated in the *Vidhiprapâ*:—*anga* 1, 50 days; 2, 30; 3, 18: 4, 18: 5, 77 (a second statement, it seems, allots 6 months 6 days) 6, 33. 7. 14. 8, 12; 9, 7; 10, 14, 11, 24. In like manner the author examines and states the number of days necessary for certain work. *âvassaya* (8 days), *dasavêâlia* (15) *uttarajjhayaṇa* (39), *nisîha* (10), *dasâkappavavahârâ* (20 or 22), *mahânisîha* (45). A recapitulation "in 68 *âryâs*" concludes the discussion: jôgavihâṇam nâma payaraṇam.

[65] See above, p. 223, 224; this is to be studied in the third year after the *dîkshâ.*

[66] Teaching sacred observances after the practice of Vâsishṭha (!) and other saints, Wilson, Sel. works 1, 284 ed. Rost.

[67*] According to Malayagiri and the Prâkrit authority quoted by him (*Nandîs.* p. 425) between 1, 7 and 1. 8 *ohôṇas.*)—L.

[68] From this it seems as if its contents touched upon the subject of magic. Was this the cause of its removal? cf. the analogous case in *anga* 10. According to the *Gaṇadharasârdhaśata* V. 29 (see p. 371) Vajrasv. borrowed the *âyâsag. vijjâ* from *sumahâpainna puvvâu* rather than from the ninth *ajjh.* of the first *śrutask.* of *anga* 1.

[69] navamajjhayaṇam vôchchhinnam, tam cha mahâpaâ rinnâ ittô kira âyâsagâminî vijjâ Vairasâminâ uddhariyâsi tti sâisayattaṇêṇa vôchchhinnam nijjuttimâtram chiṭṭhai; Silamkâyariyamaêṇa puna êyam aṭṭhamam, vimukkhajjhayanam sattamam, uvahânasuyam navamam ti.

[70*] It would suit if Malayagiri were concerned, see the last asterism note.—L.

[71] In the opening of *ajjhayaṇa* 7 we read:—adhunâ saptamâdhyayanasya mahaparijnâkhyasyâ 'vasaras, tach cha vyavachchhinnam iti kṛitvâ 'tilamghyâ 'shtamasya sambamdhô vâchyaḥ

[72] âvamti lôgasâram vâ, in the *Vidhiprapâ.*

with 4 *udd.*, treats of Vîra Vardhamânasvâmin who himself practised the course enjoined in *ajjh.* 1 to 7.

This first *śrutask.* is exceedingly difficult to comprehend and belongs, as Jacobi, from whom we expect an edition,[73*] informs me in a letter of March 14th 1880, "without doubt to the oldest portions of Jaina literature." Even the commentaries "very often do not understand the text, since from pure force of explanation they fail at reaching any explanation of the sense. The restorations, which must frequently be made, are in fact prodigious." This shows that we have to do with the method of explanation found in the later Brahmanical *sûtras*[74] (treating of ritual, grammar, philosophy), the difficulty of which is here increased from the fact that Prâkṛit is the language used, and that the MSS. are uncertain. The second *śrutaskandha* is characterized by the epithet attached to it:—*agrê_śrutaskandha* (*agrê* having the meaning of "later" here) as a species of supplement to the first. This is in harmony [254] with the peculiar designation of the four sections of which it consists according to the scholia, viz.:—*chûlâ*, i.e. "pudding," "excrescence," used figuratively here: *uktaśêshânuvâdinî chûḍâ*. The first is formed by *ajjh.* 1—7, the second by *ajjh.* 8—14, the third by *ajjh.* 15, the fourth by *ajjh.* 16. The scholia state that a fifth *chûlâ* belongs to these, which is called *niśîthâdhyayanam*,[75] being no longer reckoned as a part of the *âchâra* but placed among the *chhêdasûtras* as the first of them.[76] It belonged however to the *âchâra* at the period of *aṅga* 4, 25, where the *niśîhajjhayaṇam* is expressly designated as "25th *ajjh.*," of the *âchâra*—i.e. as the last of the 25 *ajjh.* enumerated there.[77] The impression is made upon us as if this *ajjh.* alone was called *chûliyâ*. The *âchâra* is there expressly designated as *sachûliyâga*, but in §57, where only 24 *ajjh.* are ascribed to it, the three *aṅgas* (1—3) which are there treated of, are designated as *âyârachûliyavajja*; a statement, which as far as I can see, is to be explained with tolerable certainty only in the above way.[78] Also [255] at the time of the *Âvaśy. nijj.* 16, 114, the *niśîhajjh.* was still regarded as a part of the *âchâra*, and in fact plays a greater *rôle* there than in *aṅga* 4, 25. It is counted as having 3 *ajjh.* so that not 25 but 28 *ajjh.* enumerated there.[79] Even the *Vidhiprapâ* still designates the *niśîhajjhayaṇam* as the *paṁchamî chûlâ* of the second *śrutaskandha*.

It consists manifestly of different constituent parts, which originally existed independently of each other, but at a later period were brought into conjunction. They begin almost always with the same formula: *sê bhikkhû vâ bhikkhuṇî vâ abhikaṁkhê. . . .*

In the *Nandî*, the *aṅgachûliyâ* is expressly enumerated among the *anaṅgapaviṭṭha* texts. This is not in harmony with the position of our *chûlâs* either at §§ 25, 57, 85 of *aṅga* 4 nor with the detailed treatment of the 12 *aṅgas* in *aṅga* 4 nor in the *Nandî* itself, since there the second *śrutask.* with its *chûlâs* is invariably regarded as a part of *aṅga* 1. In *aṅga* 3, 10 the *aṅgachûliyâ* is mentioned as third *ajjhayaṇam* of the *saṁkhêviya dasâu*. Consequently reference is made to a text entirely different from these *chûlâs*.

The 7 *adhyay.* of the first *chûlâ* have the following titles:—

1. *piṁḍêsaṇâ*, *piṇḍaishaṇâ*, with 11 *udd.*—"collection of the necessities of life" (see *Dasavêâl.* 5) or "rules for eating."

2. *sêjjâ*, *śayyâ* with 3 *udd.*, "couch."

3. *iriyâ*, [256] *îryâ*, with 3 *udd.*, "conduct of the *śramaṇa* when he goes out *piṇḍa-vasatyartham*."

4. *bhâsajjâyâ*, *bhâshâjâtaṁ* with 2 *udd.*, "what he has to say and what not to say."

[73*] This has appeared as one of the publications of the Pali Text Society, 1882; Jacobi has also translated the text and prefaced it by a most valuable introduction in Vol. XXII. *Sacred Books of the East*.—L.

[74] The chief representatives being Kâtyâyana (*śrautas.*), Pâṇini, Bâdarâyaṇa, Jaimini.

[75] Or *nishîthâ°*; *âchâraṁ kalpô niśîthaḥ, sa paṁchamî chûḍê 'ti fol.* 209a. So also *paṁchachûla* as designation of the *âchâra* in the beginning of the *Niśîthabhâshya*.

[76] The fourth *chhêdasûtram* is closely connected as regards its contents with *aṅga* 1; and in *aṅga* 3, 10 it is cited under the title of *âyâradasâu*.

[77] The first *chûlâ* must be reckoned as having 6, not 7, *ajjh.*, otherwise there would be in all 26 and not 25 *ajjh*; as a matter of fact 26 names are adduced, *mahâpariṇṇâ* in the ninth place. Perhaps *sajjâriyâ* is counted as but *one ajjhayaṇa*.

[78] *Abhay.*, it must be confessed, understands by âchârachûlikâ: sarvâṁtimam adhyayanaṁ vimuktyadhyayanam, niśîthâdhyayanasya prasthânâṁtaratvênê 'hâ 'nâśrayaṇât (?); the latter statement is however in too direct contrast to § 25.

[79] . . . bhâvana vimutti ‖ 113 ‖ ugghâyam anugghâyaṁ âruvaṇâ tiviham ô nisîhaṁ tu ia atthâvîsavihô âyârapakappanâmô a ‖ 114 ‖. Here we find the correct number of *adhyayanas* for both *śrutask*; for *śrut.* 1, 9, for *śrut* 2, 16.

5. [illegible] 2 [illegible] itself which [illegible] this [illegible] rather to [illegible]

6. [illegible] 2 [illegible] exception [illegible] mis-

7. [illegible] 2 [illegible] prejudice to [illegible]

The second [illegible]

[illegible] V. with [illegible] the dissonance explained [illegible] 5 [illegible] of the [illegible] in addition, [illegible] of the [illegible] or [illegible] The [illegible]

8. [illegible] being but

9. [illegible] clever [illegible] [illegible] Very [illegible]

10. [illegible]

11. [illegible]

12. [illegible] V. [illegible]

13. With [illegible] to V. [illegible] [illegible] 25 [illegible]

14. With [illegible] according to V. [illegible] From [illegible]

Since [illegible] second [illegible] of a [illegible] 57 [illegible] 25 [illegible]

have excerpted. He states furthermore[90] that the arhadvachanânuyôga[91] is divided into four groups: dharmakathânuyôga uttarâdhyayanâdikah, ganitânuyôgah sûryaprajnaptyadikah, dravyânuyôgah pûrvâṇi sammatyadikaś [92] cha, charitrakaraṇânuyôgaś cha, charâdikah[93]; the last is pradhanatamah, śêshâṇâṁ tadarthatvât. These statements are in all essentials a reproduction [259] of those in *Âv. nij.* 8, 54 where *uttarâdhy.* is represented by *isibhâsiyâim*, which the commentator however explains by uttara°; see on *aṅga* 4, 44.

II. The second *aṅgam*, sûyagaḍa, sûtrakṛita, destined for the fourth year of study, see p. 223f. likewise treats in two *śrutaskandhas* (of which the first is composed in *ślôkas* and other metres,[94] the second in prose with the exception of a small portion: *ajjh.* 5. 6) of the *sâdhvâchâra*, the right course of action; and is at the same time chiefly polemical in character.[95] According to *aṅga* 4 and *Nandi*,[96] 363 heterodox opinions *annadiṭṭhiya* (*aṅga* 4, *pâsamḍiya* N) are here combated; viz.: those of 180 kiriyâvâi, kriyâvâdin, 84 akiriyâvâi, akriyâvâdin, 67 annâṇiyavâi, ajnânika, 32 veṇaïyavâi, vainayika.[97] In consequence of this the commentary frequently cites the names of Chârvâka, Śakya, Bauddha, Sâṁkhya, Vaiśêshika, as those who are to be understood by the *êgê* cited in the text as opponents. These are also referred to in the text as *jâṇayâ*, explained in the comm. by *paṇḍitammanyâ Bauddhâḥ*. But as the root *jnâ* is elsewhere used by the Jains chiefly in a good sense,[98] I should at least give expression to the conjecture that by these *jâṇayâ* the Vaidêha king Janaka was meant,[99] [260] concerning whom and his guru Yajnavalkya all sorts of statements are preserved in the legends of the twelfth book of the *Mahâ Bhârata*, representing either the king or both the king and his guru as having affiliations with Buddhism. See *Ind. Stud.* 1, 482.[100] Jacobi, whom I consulted in the matter, proposed (April 6th, 1880) that *jâṇaka* (*cf. kiṁgâna, mahâyâna*) might be thought of in connection with *jâṇayâ*.

The titles of the 23 *ajjhayaṇas* of the sûtrakṛita are enumerated in the fourth *aṅga* § 23 (= S) in their present order; also in *Âvaśy.* 16, where, however, the sixteen *ajjh.* of the first *śrutaskandha* are apparently placed after the seven *ajjh.* of the second *śrut.* In v. 65, 66 in the first place the first sixteen are enumerated by themselves and in v. 102 the seven others by themselves; but after *nâlamdam*—the last one—we read *sôlasâiṁ cha têvîsaṁ.* It is, to be sure, not impossible that these words *sôlasâiṁ cha* are a mere reference to the earlier enumeration in v. 65, 66; but, at any rate, we should have expected that this reference would occur before the first of these seven names, and not after the seventh. Also in the *Vidhiprapâ* (= V), the names are singly enumerated; they are:—

a. First *śrutaskandha.*

1. *samaya*, with 4 *udd.*, 89 vv.: *bhûtavâdâdimataṁ nirâkriyatê*; — *udd* 1 closes:—

---

[90] The following passage is found also in Śântichandra on *up.* 6, according to which Śîlâṅkâchârya commented also upon the second *aṅga*, cf. Kl. 247b.

[91] sûtrâd anu [illegible] arthasya yogo anuyôgah, [illegible] dhy[illegible]

[92] [illegible]

[93] [illegible]

[94] [illegible]

[95] [illegible]

[96] [illegible]

[97] [illegible]

[98] *Janaka* from *Janaka*, as *Bauddha* from *Buddha*.— Another explanation of the term *jâṇaya* applied to the Bauddhas may perhaps claim more attention than the one ventured in the text by Prof. Weber. We know that the founders of religious systems [illegible] as well as elsewhere [illegible] Buddha [illegible] *Prabandha*, ed. Cowell [illegible] Buddhists, but [illegible] religion [illegible] every- [illegible] conversing with any one. [illegible] Now it might well be that the [illegible] a term [illegible] his contempor- [illegible] Buddha's party, the [illegible] not found as others [illegible] Mahâvîra in [illegible] Buddhists and Jainas.—L.

[99] [illegible] founders found in the Buddh. [illegible] Burnouf [illegible] Weber's *Ind. Streifen*, 3 [illegible] Yajnavalkya. For the peculiar [illegible] among the Jains (see page 260 [illegible]) the reader is referred to *Bhagav.* 2, 305, and to my treatise on the *Satr. Mâh.* p. 20.

[100] [illegible] founder and [illegible] the [illegible]

Nâyaputtê Mahavîrê [261] *êvam âha Jinôttamê tti bêmi* [27.] H. Jacobi (*Kalpas.* p. 6) is the first scholar who identified the name of Mahâvîra[101] occurring here, with Nigantha Nataputra (or Nigaṇṭhanâtha, "fils de Jnati," Burnouf, *Lotus*, p. 450. 486) who is mentioned in the Buddhistic legends as a contemporary of Ajâtaśatru or of Buddha. A reference similar to that given here is found in 3 (cf. 5 and 6). See my remarks on *aṅga* 10.

2. *vêyâl'ya*,[102] *vêtâlîya* [illegible] V, *vaidârika*, with 3 *udd.*, 76 vv.: [illegible] *karma vidârayaṇê*. It begins *sambujjhaha*. *kiṁ na bujjhaha? sambôhî puṇa* [illegible]. This *ajjh.* is not referred by the Scholiast to Vîra, but is characterized as a teaching of *Rishabhasvâmin* to his sons; with which statement the conclusion of the third *udd.* is however not in harmony. This chapter is composed in the metre called *vaitâlîya* by Piṅgala (*chhandas* 4. 32) and by Varâhamihira (104, 55). In my opinion great importance must be attached to this circumstance. It is very probable that the similarity of this name with that of the title of our chapter is to be explained by the assumption that the metre had taken its name from the text in that metre. This designation would not only be a direct testimony [262] to the existence of this text at the time of Piṅgala and of Varâhamihira, but also—inasmuch as it rests[103] upon a representation of the *Prâkrit* word *vêyâlia* in Sanskrit, which was liable to be misunderstood, or upon an incorrect spelling with inorganic *t*—might be regarded as a proof that even at that early period the title of this chapter had been handed down in this incorrect form. Both of these probabilities are of extreme interest. We must here note that Varâhamihira expressly cites *Mâgad[illegible]* as a "*Prâk[illegible]*" synonym of *vaitâlîya*—see *Ind. Stud.* 8, 295 from which we may with probability infer that a direct reference is made to the language of our text or to the language of Buddha.[104] Of interest, furthermore, is the fact that on 2. 1. instead of *mâhaṇa* (= *brâhmaṇa*: used in a good sense—which is a proof of the antiquity of the text—) the scholiast mentions the various reading: *jê viû* (*vidus*), *gâ vidrân*. The latter is probably an intentional change of a secondary nature or perhaps a removal of the original. At the conclusion of *udd.* 3, which is composed in prose, we read:—êvaṁ sê udâhu aṇuttaranâṇî aṇuttaradaṁsî aṇuttaranâṇadaṁsaṇadharê arahâ Nayaputtê bhagavaṁ Vêsâliê viyahie (vyakhyatavan) tti bêmi. The scholiast illustrates Jnâtaputra strangely enough by Vardhamânasvâmî Rishabhasvâmî vâ and explains Vêsâliê in the first case (*i.e.* when *Jnâtaputra* means *Vardham.*) by *Viśâlâ-nagaryâm*, in the second (*i.e.* when *Jnâtap.* means *Rish.*) by *vaiśâlikah* (*viśâlakulôdbhavatvât*.) In any case this epithet, which is probably a nominative, is of extreme interest in this connection. Abhayadeva, too, [263] on *Bhag.* 2. 1. 12, 2 explains *Vaiśâlika* by Mahâvîra and in fact as a metronymicum (!): Viśâlâ Mahâvîrajananî The *Vêsâliya-sâvaga* appear elsewhere in the Jaina legends, but—and herein is to be found a divergence from the Buddhist legend—in a favourable light; see *Bhagav.* 2, 197. 249; 1,440.

3. uvasaggaparinnâ, upasargaparijnâ with 4 *udd.*, 83 vv.: pratikûlâḥ and anukûlâḥ upasargâḥ, taiś cha 'dhyâtmam vishâdaḥ.

4. itthiparinnâ, thîpa° V, strîparijnâ, with 2 *udd.*, 53 vv.: strîparîshahô jêyah; conclusion in prose: ichch êvam âhu sê Vîrê dhuyaraê . . tti bêmi.

5. narayavibhattî, niraya V, narakavibhakti with 2 *udd.*, 52 vv.; *strîrâgasya narakapâtaḥ tatra cha* [illegible] *vedanâḥ*. "I asked the *kêvalin* [illegible]"—thus the author, according to the scholiast [illegible], begins his recital. "Thus questioned by me, *Kâsavê* [illegible]) [illegible]."

6. Vîratthava, Mahâvîrastava, with 29 vv.; it begins: "The śramaṇas and brâhmaṇas, the agârins and the [illegible] (Sakyadaya[illegible]) asked about the doct[illegible] and life (*nâṇaṁ, daṁsaṇaṁ, sîlaṁ*) of the N[illegible]."

(*To be continued.*)

[101] According to the legend Vîra first descended into the womb of the Brâhmaṇî Dêvânandâ, wife of the Brâhmaṇ Usabhadatta (Kôḍâlasagotra), in Kuṇḍagrâma; thence into the womb of the Khattiyânî Trisalâ, wife of the khattiya Siddhattha (Kâsavagotta), of the race of the khattiya called Nâya, in the same place; Vîra is therefore called their son. (Cf. also [illegible] page 285) the statements of Abhayadeva [illegible] Viśâlâ Mahâvîrajananî! He is designated both as Nâê Nâyaputtê Nâyakulachande and as Videh[illegible] [illegible] (*Kalpas.* § 110)

[102] W[illegible] *vêyâ*[illegible] at the conclusion of [illegible] vaidârikaṁ [illegible] in the name of the [illegible] quite differently

[103] The derivation from [illegible] (*Ind. Stud.* 8. 168, 178) would then be overturned

[104] Buddha seems to have made use of this metre, since it is used in the *Dhammapada*, etc.

the king of birds, perched upon a bough of the tree exactly over the king's head and fell to preying upon a venomous serpent which it had brought from a great ant-hill. A drop of poison from the serpent dropped on the king's throat and our hero the minister perceived it. Thinking that the poison might cause the king's death if it found its way inside the body through the pores of the skin, he took out a small knife which he had with him to gently remove the fatal drop. Just at this moment the goddess Lakshmî, true to her promise, stood before him and asked his permission to go. He permitted her to do so and placed the knife on the king's throat. The king suddenly awoke and finding the minister with a knife at his throat upbraided him with treachery.

"If I had thoughts of killing you, my lord, I could have done it long ago. Look at the king of birds up above you, and also look at the serpent he is feasting upon. A drop of poison fell from the mouth of that deadly reptile on your Majesty's throat and for trying to remove it, I am abused. But there is no use in my remaining any longer with you." Thus spoke the minister and explained to the king how up to that moment Lakshmî had reigned in him. Continued he, "As the goddess Lakshmî remained in me up till now even my impertinent acts have met with your Majesty's approval. When I kicked at your lordship's crown and when I dragged your Majesty and your queen out of your bed-chamber, Lakshmî it was that saved me by taking the shape of a serpent from under your crown, and by pulling down the roof of the room. Now that she has abandoned me but a moment ago even a good act has been misunderstood."

He then requested the king to allow him to continue in the forest to perform penance. But the king, not to be out-done in liberality, gave him again the minister's place. Our hero, however, fearing that after Lakshmî had left him it would be unwise to accept any appointment, preferred to remain in the woods.

The moral drawn by natives of South India from this story is that only as long as the Goddess of Prosperity reigns in us we can expect to be in good circumstances.

No. XXVII.—*It is for the best.*

In a certain country there lived a king who had a peculiar minister, and whatever the king consulted him about he always replied, "It is for the best." In a word, this minister was what would now be called an optimist.

One day the king lost one of his fingers in handling a sharp instrument, and, sending for the minister, he showed him his hand and said, sorrowfully, "See what a calamity has happened to me, I have lost one of my fingers."

The minister coolly replied, "It is for the best."

Greatly was the monarch enraged. "Vile wretch! Do you dare to say that the loss of a finger is for the best? You shall see the result of your stupid motto. You shall live in prison for a score of years," said the king.

But again the minister merely replied, "It is for the best."

"What impertinence!" said the king, and sent the minister off to jail; and so our hero had to undergo imprisonment.

The day after this affair the king went to the forest to hunt, to which amusement he was in the habit of taking his minister along with him. But as he had imprisoned him he had to go all alone, and, after a long and tiring hunt, he rested under a tree for a short sleep. Before long he heard the roar of a lion and considered himself as good as dead, for the lord of the beasts had seen the lord of men and had marked him down for his prey. The king went off into a dead faint. Now, it is a belief among the Hindûs, that lions do not eat a man who is deformed, or who sleeps. And so when the lion examined the fainting king and came to the mutilated hand he went away, spurning the monarch as useless for his prey as long as a finger was wanting.

When the king awoke, he thought within himself: "The words of my good minister have proved to be true, when I showed him my deformed hand yesterday and he said, 'It is for the best:' but I, in the love of my own self, took his words in a wrong sense and imprisoned him. Now, had it not been for my lost finger I would have fallen a prey to the lion. So my loss has worked for my good. But what good can possibly result from my imprisonment of my minister? He said it was for the best, and I shall ascertain from his own mouth what he meant."

So thinking the king returned, and at once ordered the minister to be released and to be brought before him. He came and stood before his lord accordingly, and the king explained to him all about the lion and how his words had proved to be true so far. "But how can my sending you to jail be for the best?" said the king.

Replied the minister, "My most noble lord! Had it not been for my imprisonment in the jail I would have accompanied you to the forest and fallen a prey to the lion. After rejecting you for being deformed he would have taken me away for his feast. So I should have died. Therefore even my having lived in the jail for a day was for the best."

The king was extremely pleased with the reply and received his minister into still greater confidence.

MISCELLANEA.

RAMBLES AMONG RUINS IN CENTRAL INDIA.

Thirty or forty miles north of the river Narmadâ, in Central India, there lies a tract, enclosed east and west by the rivers Binâ and Pârbatî and south by the Vindhyan scarp, in which there are many remarkable Buddhist, Jain, and Brahmanical ruins. They consist of topes, temples, tanks, monasteries, and columns. This district was formerly part of Gôndwâna. A low range of rocky hills divides it from the Serôñj plateau on the north.

Through its very centre, towards the north, flows **the sacred river Bêtwâ,** rising among the upland valleys of the range. Its upper course is tortuous; and the rocky hills round which it sweeps, with the broad vales and narrow glens over which the holy stream gently glides or through which it swiftly rushes, were for many hundred years before and subsequent to the commencement of the Christian era a great centre of religion and of wealth. Dotted over mountain and plain the ruins of remarkable works of art and utility testify even now to the religious zeal and mercantile activity of the past.

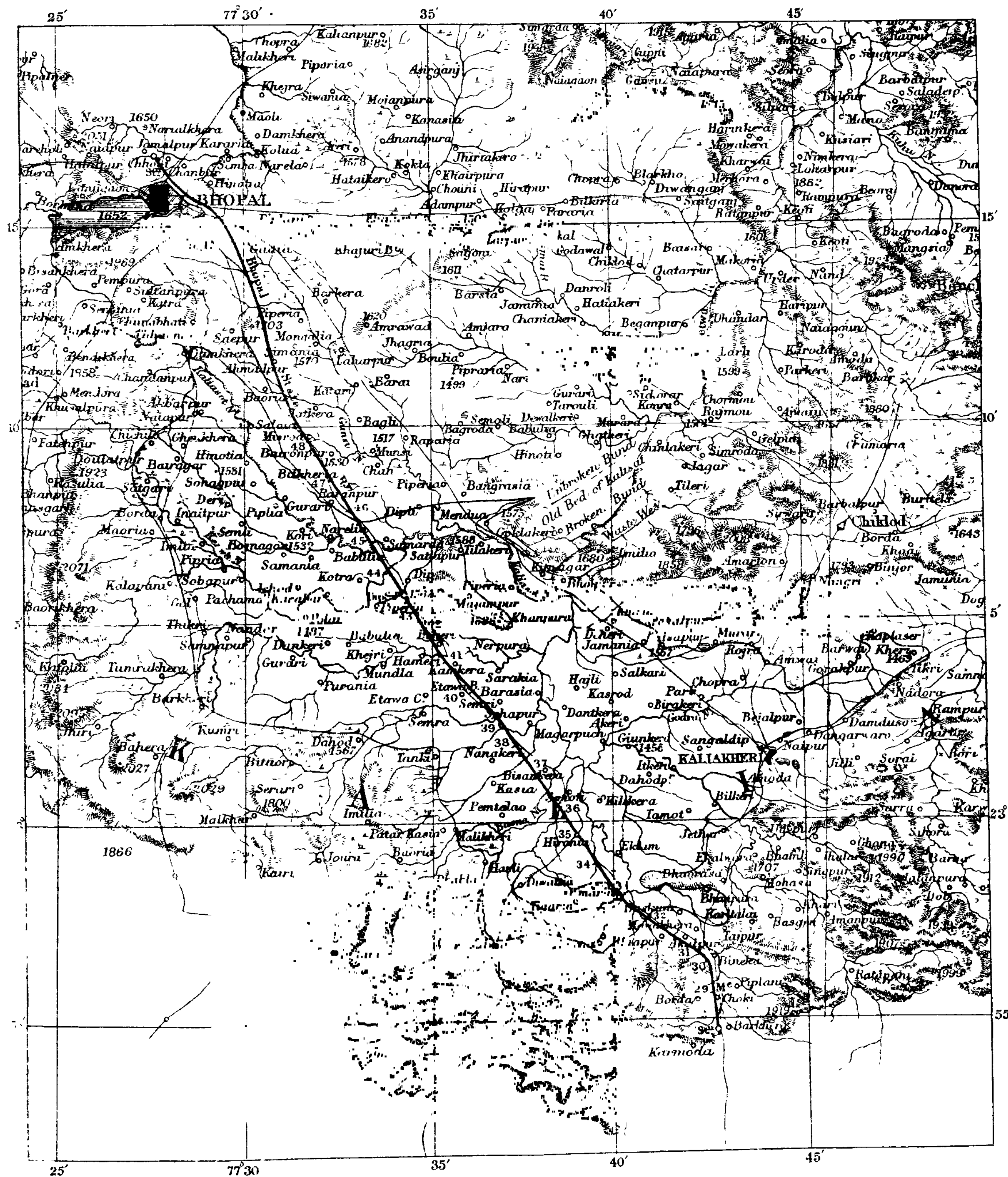
The oldest and most famed of these is **the Buddhist tope upon the Sâñchi Hill,** overlooking the Betwâ. Probably it formed the earliest centre of attraction, which for so long drew crowds of devotees and also a multitude of all classes to a district which, if it was as wild then as now, must have been singularly uninviting for human settlement. It is not my purpose in this paper to attempt a description of this famous fane, or of those of a like nature which cluster around it, or indeed to give any detailed archæological description; but simply to **sketch what I have seen of the lesser known remains of towns, temples, and tanks,** still lying for the most part in the jungle and out of the beaten track of travellers, but which are about to be rendered accessible by the Indian Midland Railway.

At a very early period of this settlement, perhaps a few centuries before our era, **the city of Bèsnagar** must have been founded. Its site was about two miles from the Sâñchi hill. Greek and Buddhist coins, ploughed up every rains, testify to its antiquity. Moreover, its remarkable position and selected means of defence, stamp it to have been contemporary with the ancient cities of Éran, Dhâr, and Sìhôr, similarly situated and defended. It was placed between the rivers Bês and Bètwâ, above their point of junction, within a triangle formed by a curve of the latter river and completed by an artificial communication between the two rivers. The earth excavated was formed into a high rampart, topped with brick; and thus, surrounded by deep rivers and high banks, good defence and an ample supply of pure water were assured. This circumscribed area of not more than two square miles must have been subsequently much extended. There are ruins across both the Bètwâ and the Bês, extending to the modern Bhèlsâ on the east, to the Udigiri hills on the west, and to the spot where General Sir A. Cunningham dug up the *kalpa-druma* and the statue of Mâyâdèvî on the north. A great, rich and populous city must have stood here for centuries, perchance for a thousand years,—a focus of civilization and a centre of wealth.

The sculptured **kalpa-druma** (wishing-tree) and **the statue of Mâyâdèvi** (the mother of Buddha), which adorned columns in this city, are now in the Calcutta Museum. But the interesting sculptured ancient caves of the Udigiri hill, still untouched by the hand of time, are full of interest. Scattered around are remnants of capitals and columns enough to enrich a museum, and buried beneath mounds probably lie interesting, and perhaps invaluable, stone records of the ruined city and temples.

From the above account it will be understood that Bêsnagar was built between two rivers. But the sister city of **Êraṇ**, fifty miles to the north-east,

The bed of the Ancient Lake of king Bhoja near Bhopal.



in the Sâgar District, was efficiently defended by a single loop of one river, the Binâ, and an artificial trench and rampart, while their contemporary, **Dhâr**, in south-western Mâlwa, was on an island surrounded by a ring of lakes, each connected with the other by deep ditches covered by lofty ramparts, which still tower forty or fifty feet above the plain. **Sihôr** was defended on a smaller scale, but in a like manner to Bêsnagar. The **Midland Railway** runs between Sâñchi and Bêsnagar, with the great tope on its right and the Udigiri hill on its left; and after crossing the Bêtwâ it passes close by the ruined city to the Bhêlsâ Station.

Twenty miles east of Bhêlsâ, around the modern town of **Gyârispur**, lie some most beautiful ruined temples. One, indeed, affords a sublime sight, owing to its noble proportions, and the grandeur of its site and surroundings. I allude to the magnificent shrine on the extreme point to the east of the hill behind the city Its site and platform beautifully sculptured were boldly carved out of the hill crest. On the spot, a temple of noble proportions and exquisite detail was erected, in such a manner that it appears to be a part of the cliff under which it nestles, perched 500 feet above the plain. There are few more impressive spots, and the view from the temple platform over fertile fields of green wheat, in the cold weather, is one not easily forgotten. I remember this temple, though with a damaged exterior, yet with its interior shrine intact. Treasure-seekers have now wrecked the statues and destroyed the floors, but even at the present time the view of the interior, when a flood of light enters through the eastern door from the rising sun, is very beautiful: at all other times it is dark, and can only be seen by the aid of torches. In no temple have I seen a more curious effect than that of the entry of the rays of the rising sun into the inner shrine of this one To the ancient worshippers it must have been a supreme moment, when the Sun-god kissed into seeming life the beautiful goddess at the shrine.

At the base of the hill, not far from the high road between Bhêlsâ and Gyârispur, are two rare and interesting temples, **the Bajranâth shrines**, which will well reward close inspection; as also will the exquisitely carved roofless columns.

About thirty-four miles north of Bhêlsâ stands the rare and beautiful temple of Udayêśvara within the town of **Udayapura.** This is the only ancient fane in the neighbourhood, that escaped desecration or destruction at the hands of the Musalmân conquerors. Built not long before the invasion of Muhammad Tughlaq, it was ordered to be blown up by him on his conquest of the city. Bags of powder were heaped inside and under the tower; but, watered possibly by the power of priestly gold, the powder would not burn; and the emperor, in acknowledgment of the miracle, ordered the preservation of the temple, compromising with his conscience by turning one of the two Vêda reading-halls in front and rear of the building into a mosque, dividing it by a wall from the heathen structure, and recording the fact on the archways of the entrance. This has preserved the temple to the present day, alike from the iconoclast Aurangzêb as from the occasional outbursts of fanaticism of the Mându kings of Mâlwa. The temple is of perfect proportions and of noble form, covered with very fine sculptures. It is most strikingly harmonious, and is a perfect gem of art, not only as a whole, but in its several parts. The tapering spire, unusually lofty, is seen from afar, though, such are its perfect proportions, that its great height is not noticed when viewed near. There are three entrances, each covered by a grand porch, and the interior is even more strikingly perfect than the exterior; but, unfortunately, it is so dark that it can be only seen with the aid of torches, when it will be observed that at one time the Jains must have possessed themselves of the temple, though probably it was originally a Brâhmanical shrine. It is a curious fact that the oil for the temple lights is and has always been supplied by the family of Agra Bukera, who are Punwâr Râjpûts, and claim descent from Râja Bhôj, of Dhârâ, in whose reign, or by whose family perhaps, the temple was erected. This is interesting, though General Sir A. Cunningham has been unable to trace any probable descendants of that famous king.

Twenty miles further east are to be found, in and round about the modern **Pathârî**, most interesting and rare remains. The most striking is the famous stone column or *lât*, the largest and most massive in the district, though far less beautiful than the slender graceful monolith of Éran, twenty miles to the north. Around it are many interesting ruins fully described in the *Archæol. Survey of India*, Vol VII. But the most beautiful and extensive is the ruined temple of Gadarmal, situated on the banks of a tank about a mile and a half from the present town in a picturesque position, near well-wooded but rugged hills, originally constructed after the manner of that of Udayêsvara. This temple was overturned and then was put together again unskilfully by the Jains with little order or symmetry. The exquisite *tóran* or gateway must have escaped, for, though half-ruined by neglect, it is still singularly beautiful, and is worth travelling far

to see. This unique gate, tottering to complete ruin, ought to be carried away to a place of safety, together with the finely sculptured and richly carved life-size *basso relievo* of the mother of Buddha and her infant. The temple is in Sindhiâ's dominions, and there would be no difficulty in obtaining permission for the removal of the gate There are many Jain temples scattered about, some dating from the seventh century.

Twenty miles north-east are the remains of the Êraṇ temples, so famed for their graceful columns and valuable inscriptions. On a high bank of the Bînâ river, the beauty of the situation adds a charm to these beautiful and romantic ruins.

Returning towards Bhôpal, twenty miles south of the city are the remains of the city of **Bhôjpur**, not far from which is situated the ruined or uncompleted temple of Bhojpur, famed far and wide on account of its gigantic *linga* This temple is remarkable on account of being probably the only one in India which, remaining unfinished, presents the earthen ramp up the easy slope of which were rolled, after the manner of the most ancient builders (as pourtrayed on Egyptian and Assyrian sculpture) the immense stone blocks for the walls and roofs. This fact, apart from its grand internal proportions, attaches great interest to this temple, which, though in a ruined condition, is still used for worship, and owing to its gigantic polished quartzite *linga*, has wide local fame. I do not think the inscription on the lintel of the door has ever been carefully copied and translated. The temple evidently was built some little time subsequently to the formation of the lake on the shore of which it stands, and most likely after the city of Bhôjpur had become a place of importance. The ruins of this large town stand close by. It seems to have fallen into decay in the fifteenth century, on the destruction of the dam and subsidence of the waters of the lake

The great Bhôjpur lake, just alluded to, was without doubt the largest and most beautiful sheet of fresh water in India; indeed, the only one worthy of the name of lake as we understand it. It covered a valley which presents the most remarkable feature that, though it is so extensive, only two breaks occur in its wall of hills,—one a little more than one hundred, the other about five hundred yards wide. Both of them were spanned by very remarkable dams, consisting of an earthen central *band* faced *on both sides*, outer and inner, with immense blocks of stone laid one on the other without mortar, but fitting so truly as to be watertight, the two faces sloping inwards from the base. The lesser opening was closed by a *band* 87 feet in height, and 300 feet thick at the base, or even more; the greater, by one in places 40 feet high, and about 100 feet broad on the top; and, though the first-mentioned *band* is now a complete wreck, the latter is intact and still continues to turn the river Kâliasôt into the Bêtwâ, and from its top the old bed of the stream is recognisable The lesser but higher *band* was broken by Shâh Hussain, the greatest of the Mându kings, for the purpose of utilizing the bed of the lake; and, though tradition relates that he never personally benefited by this act, the fact of the present fertility of the valley, still growing the best wheat in the country, proves his practical statesmanship, however much we may regret the loss of a water storage of such rare size and beauty for India. The Gônds who live in the thick jungle still surrounding this valley, tell us that it took an army of labourers three months to destroy the dam, while three years elapsed before the lake was emptied, and thirty before its bed was fit for human habitation

I do not know that **the story of the construction of this lake by Râja Bhôj of Dhârâ** has ever been written. It is an interesting tradition. It runs that Râja Bhôj was stricken with a severe illness, some say leprosy, which the court physicians failed to remedy. He therefore had recourse to a holy recluse, who lived at a distance, but was widely famed for his miraculous cures. The monk, after considering the case and performing many incantations and examinations of signs and omens, gave the following oracular decree:—that the king would die of the disease, unless he was able to construct a lake so great as to be the largest in India and fed by 365 streams, or a stream for every day in the year. By bathing in such a lake, on a certain day, at a certain hour, he would be cleansed, not otherwise The king, it is related, gathered together men learned in all the sciences, and settled in his capital by reason of his liberal patronage, and consulted them. They recommended that skilled engineers should be sent along the valleys east and west of the Vindhyan range, which lie near Dhâr, to explore the country and report upon the feasibility of such a lake being constructed. And it is said that, after a long and weary investigation and many hopeless failures and immense expenditure, they discovered the valley, subsequently enclosed, in which there happened to be the head-waters of the holy river Bêtwâ But, alas! only 359 springs and streams fed the waters flowing through the valley. The difficulty was however, eventually overcome by Kâlia, a Gônd chief, pointing out the missing river, which with its tributaries, made up the number, and was

accordingly named, to this day, Kâlia's river, or the Kâliasôt.

This tradition preserves two important facts, *viz* :—(1) That the drainage area of the sources of the Bêtwâ was insufficient to fill the valley through which it flowed and which it was intended to enclose. (2) That the lake thus formed was of unusual size for an Indian lake. A study of the local topography and the remains of the works, clearly proves that the engineers of those days undoubtedly understood that the drainage area of the Betwâ and its tributaries was insufficient for their purpose, and that they skilfully supplied the deficiency by turning into the Bêtwâ valley the waters of another river, which, rising twenty miles to the west, and flowing naturally outside the hill-enclosed valley, would increase the drainage area by at least five hundred square miles. This was accomplished by the creation of the magnificent cyclopean dam on which stands the old fort of Bhôpâl, and which, previous to the Bhôpâl dynasty, was covered with finely sculptured Jain temples. From the storage lake thus obtained, a river flowed at right angles to its former course round the hills into the Bêtwâ valley, and became a most valuable feeder to the constructors of the great lake, because it carried the surplus waters of the storage lake into the larger lake for three full months after the close of the rains. This river is the Kâliasot.

To test the tradition as to the lake's unusual size emphasised by the local saying, *tâl hai to Bhôpâl tâl, sab dûsre telyâ*—"if there be a lake it is Bhôpâl lake; all others are ponds,"—a line of levels was run from the waste weir or ancient outfall to the Bhôpâl railway levels, and thence other lines were projected. These, when plotted on sheets 16, 17 and 26 of the Bhôpâl-Mâlwa Topographical Survey Maps, proved that the ancient lake covered the valley to the extent of two hundred and fifty square miles,—its bed lying as shown in the accompanying map,—and must have formed the largest, as it did the most beautiful, lake in the peninsula of India, giving one unbroken sheet of water save where islands added to its beauty. It was in places a hundred feet deep; and on all sides it was surrounded by high hills covered with verdure to the water's edge, except at the clearings around the towns that soon sprang up on its shores. A ramble upon these discovers that the wavelets of five hundred years have left their marks; and one is struck by the many inlets and picturesque outer valleys, which, when filled with water, must have appeared almost like separate lakelets and must have been of weird beauty.

The waste weir, discovered by the writer in one of these rambles, lies buried in almost impenetrable jungle, and is certainly worth a visit. It is a cutting through the solid rock of one of the lower hills on the east side. It is at the blunt apex of a triangular valley, opening from near the great dam, and is probably two miles from it in a direct line. Its position, so far from the dam, affords another proof of the practical ability of the Hindu engineers of the time; for any error in levels would have quickly destroyed the dam, which, though stone-faced on both sides, was filled in by earth, and could not long have withstood an overflow. There are signs on its rocky and unbroken sides which show that high-water mark was within six feet of the top.

The second and lower but longer *band* already mentioned was thrown across the only other opening of this remarkable valley, and by its construction the Kâliasôt was turned off from its course at right angles into the Bêtwâ. It is so covered with jungle that it escaped even the keen eyes of the Topographical Survey Officers. It is constructed in like manner to the other one, but is still unbroken. Its top is used as part of the high road from Bhôpâl to Kâliakhêri.

On the ancient shore at Bhôjpur the Gônds point out more than one group of large flat stones,—two upright and one horizontal,—like Keltic remains, and revered because they were used by Râja Bhôj as his boat-houses. Sitting on one of these, and gazing afar over a perfectly flat valley bounded by the hills forming the western shore, it is not difficult to fancy an actual sea taking the place of the sea of waving green wheat, or to hear, in the rattling of the *peepul* leaves overhead, the lapping of the wavelets under the morning breeze on the rocks below. It is most interesting to listen to the Gônds telling their old-world tales of the ancient sea, how Râja Bhôj, whose name and memory seems beloved by [illegible] and all others in Central India, used to sail over to the opposite shore every morning for his early orisons among the Buddhist caves, —perhaps [illegible] still a monastery on the top of Bhimbêt hill, and then returning for his noonday meal. They tell of the traditions of the lake-cities now in ruins, of the spirits of the deep that interfered with the completion of the great temple, and many other tales of old connected with the mighty fort of Gonar, away on the mountains beyond the western shore. They relate with awe how the fort's deep dyke of defence, carved out of the solid rock, was cut in a single night; and how the prophecy concerning a still mightier in days to come has been verified, in their simple ideas, by the great rock cuttings of

the Bhopâl State Railway under the neighbouring mountains. Regarding this Gônd fort and its curious defences and its adjoining ruins, I may have stories to tell at another time. It is most probable that, during the existence of the **Bhôjpur lake**, the local climate was much affected, particularly to the east as far as Bhêlsâ. The hot winds blowing over this city must have been tempered by the mass of water to windward. The evaporation also must have been so great that the waste weir can only have had water flowing late in the rains, and only for a short while then, and therefore for some distance the water in the Betwâ must have been during the dry season only a fraction of what it is at the present time; and floods, frequent now, must have been then of rare occurrence. This probably explains the fact that a great deal of the city of Bhelsâ is built below the present flood level and is subject to disastrous inundations. It was possibly built when the lake existed; indeed, on conversing with the representative of one of the oldest families of Jain merchants, he assured me he had records to prove that, when his family settled in Bhêlsâ, the Bêtwâ was, as he expressed it, a dry river, and, in consequence of the difficulty of procuring water in the hot season, the members of his and other families had excavated the numerous tanks and wells, the remains of which are to be found around the city. The destruction of the lake rendered their use unnecessary; and the wells were never repaired, and the tanks relapsed into fields. It is possible that the date of the total abandonment of Bèsnagar was hastened by the drying up of its principal defence and reservoir.

Before concluding, it is worth noting that the name of **Dip**, a village on a small hill about half-way between Bhôpâl and the Narmadâ, and on the northern borders of the valley,—now a station on the Bhôpâl State Railway,—first attracted my attention to the traditions of the great size of the lake, which had been considered by Europeans to be much exaggerated. If the name meant anything it must mean 'island,' being a corruption of the Sanskrit *dvîpa*; and if the hill on which the village stands was an island, then the traditions only testified to what was true. The surveys I have alluded to, prove that the entire hill on which Dîp stands really was an island, perhaps two miles in length, and that the northern shore closely touched the hills which alone separated the larger lake from its storage lake,—the present lake around the modern city of Bhopâl. I am of opinion also that the name of this city is derived in the manner related by Gônd tradition; *viz.* Bhôj-pâl, 'the *pâl* or *band* of Râja Bhoj.' And the reason why this *band* became to recent generations more famed than the great *pâl* near the city of Bhojpur, is, I take it, that the Bhôpâl *pâl*, constructed exactly like the others, but immensely broad for its length and height, became a holy shrine of Buddhist temples, constructed on its broad top, which temples were all no doubt ruined when the founder of the Bhôpal family wanted materials for the construction of the fort and walls of the citadel. The city of Bhôjpur probably rose so rapidly, from its salubrious position to importance, that it gave its name to the great lake which really was the cause of its existence.

I think there are few European visitors to these ruined sites who have not longed for a glimpse of the once beautiful lake, or a sail on its broad waters on a hot day in May over to the Buddhist ruins on Bhîmbêt, or a run up the romantic waste-weir valley, at the close of the rains, to hear the thunder of the overflow as it plunges down in broken cascades to the Bêtwâ, 100 feet below, or an early morn or sunset sail among the isles and up the lovely bays on the western shore, some of them so enclosed as to appear separate lakes, surrounded by mountains nearly 1000 feet high and clothed to the water's edge by tropical verdure. Now, right through the old bed of the lake the iron rail is laid; the whistle of the engine is heard over the plain, and even penetrates the distant glens; and never again can the waters lie on the bosom of the valley which they fertilized whilst beautifying. The iron horse protects it, whilst it opens the scene I have endeavoured to portray to the western pilgrim; roads and rest-houses follow its track; and the beautiful Sâñchi tope, now renovated and restored by Government, the superb Gyârispur, Udayêśvara,—a veritable sculptured story,—the romantic Pathâri, and the picturesque Eran, all lie close to the new railway which will perhaps be, before the close of next year, the through route to convey all travellers to the north of India from Bombay.

W. KINCAID.

[illegible]ESS OF EUROPEAN SCHOLARSHIP
No. XI.

[illegible]ctions of the Eastern Section of the [illegible] Archæological Society, Vol II., Part [illegible]

[illegible] (a) [illegible]eting Feb. 9th 1887.

[illegible]hotin called the attention of Baron von [illegible] to the fact that coins of the first U[illegible]mirs and other later Sultâns are on sal[illegible]tantinople.

N. N. Pantusov sent a **Chinese inscription** with a translation.

N. P. Ostroumov sent a manuscript collection of **popular songs** of the **Sarts**.

S. M Georgievski communicated the results of his examination of the **Chinese manuscript** exhibited to the Society by N. M Yadrintzev. According to his opinion it was written thirty years ago, and its object was to spread Muhammadanism in China. There is no historical information in it, only legends intended to exaggerate the antiquity of Muhammadanism in that country

V. A. Zhukovski read his paper on the Persian sect, **'Ahl-i-Haqq.**[1]

V. S. Golenistchev described the **inscriptions** found by him during his travels in the **Wâdî Hammamat.**[2] He also exhibited some fragments of papyrus and parchment with Egyptian and Arabic texts

D. A Chwolson arranged the **inscriptions of Semirechia,** according to their styles and dates He decided that the word *atlia* met with in the date of the inscriptions was really a Syriac word and corresponded to the Turkish *lu*, *i e.* dragon, also to be found in them [3]

(b) *Meeting March 16th* 1887.

N. P Ostroumov sent reprints from the *Turkestanskia Viedomosti,* containing essays in the **Sart language** on local traditions and instruction in various trades and professions

A. A. Tsagarelli read a paper on the **Georgian inscriptions** found and collected by **P. A. Sirku.** These inscriptions are to be published.

(c) *Meeting April 27th* 1887

Baron von Rosen gave an account from the Arabic newspaper *Samaratu'l-funûn.* of nine marble sarcophagi recently found at Sidon.

A. A Harkavy gave an account of a **Hebrew version** of the story of **Alexander the Great** which he found during his last visit to Egypt and Palestine, differing in many points from those previously known. He assigned the MS., which was unfortunately imperfect, to the sixteenth century.

Baron von Rosen communicated the contents of a work of an Arabian writer of the **tenth century**, Ibn Roste — Ibn Dasti It contains a curious **description of Constantinople**, particularly some customs of the Byzantine Court, described by an Arab, named Hârûn Ibn Yahya, who was taken prisoner by the Byzantines There is, besides, the itinerary of the same person from Constantinople to Rome, and a description of the noteworthy objects of the latter city

(d) *The sect of the True People, or the 'Ahl-i-Haqq, in Persia* V Zhukovski, the writer, while studying Kurdish dialects at Shirâz in the Spring of 1886, came in contact with a man who struck him by his severe remarks on the Musalmâns, and who acknowledged that he drank wine and ate swine's flesh, not thinking it to be sin The man turned out to be a member of the **Kurdish sect**, called **'The People of Truth.'** Although he was at first reserved, yet the author succeeded in taking down from his recitation a strange 'Confession of Faith,' which is here given in the original with a translation To the north-west of Shirâz, at the distance of about three or four versts, are some villages inhabited by these sectaries, who belong to the Kurdish race of the **Gurâns**. The Gurâns are very interesting as having a special dialect.[4] They furnish the greatest contingent to the sect here described, and are hated by the Musalmâns, who call them **Shariât**. They style themselves 'People of the Truth' (**'Ahl-i-Ḥaqq**) and are very favourably disposed to the Christians, whom they consider almost as their co-religionists. They eat swine's flesh and drink wine, but esteem drunkenness a great disgrace. In some respects they conform to the outward rites of the Musalmâns to avoid persecution. They do not, however, observe the fast of Ramazân. They never shave, nor cut their moustaches, probably because they have some superstitious ideas about the power communicated by the hair. The native who furnished information to the writer about the sect, upon being asked what his co-religionists thought of Muhammad replied, "According to our traditions, it appears certain that Muhammad cut his moustaches, and therefore could not be a proper judge of or understand the truth They pretend to take their faith from a certain Muhammad Ibn Nasir, the contemporary of 'Ali, the son-in-law of Muhammad The sect seems to possess no religious books, but they offer sacrifices, which may consist of anything, provided it be edible, beginning with a little sugar to a sheep or cow, but there are fixed offerings on fast days, the birth of a child, or the admittance of a new member into the bosom of 'Truth' The writer of the article discusses their religious belief at considerable length. On [illegible] to Mazandarân from Tehrân he passed through two villages, Bumèin and Rudèm, the first of which is partly and the second entirely settled by **Kurd-baché** or **'Ahl-i-Ilâhi**, who do not entirely coincide with the people above mentioned, but very much resemble them He was told by a man of "the Truth" that the only point of difference was the time for beginning the fast, which is three days later with

[1] *Vide infra*
[2] These are to be published
[3] *Vide infra.*

[4] See Rieu's *Catalogue of Persian MSS.* in the British Museum

the Kurd-bachê: but this does not prevent them from being present at their assemblies and partaking of the sacrifices M. Zhukovski was struck with the neatness and order to be seen in these villages

(e) *A Journey to Susinjan.*—In this article M. Veselorski describes a journey which he undertook to this place with the view of exploring a **kurgân** It is situated about 70 versts from **Tashkand** The name signifies 'the parting of the waters' The *kurgân* was not found to yield anything of especial interest, and the chief value of the article lies in its description of the surrounding localities.

(f) *A Hoard of Coins found at Chistopol.*—There have been many finds of **Kûfic coins in Russia**, but those belonging to the second half and the end of the tenth century are the rarest, especially those of the **Buveyyids** or **Bûyis** T. S. Saveliev described a hoard, found in the Government of Kazan in the year 1885, consisting of *dirhams* of the Bûyis, who in fact ruled Baghdâd for more than a hundred years (933—1058). Their coins are noted for the abundance of inscriptions on them. There is a work on these coins by the Danish scholar Lindberg, '*Essai sur les monnaies coufiques frappées par les Emirs de la famille des Bouides et les princes de leur dependance*' In 1856 some more of these coins were found in the village of Makla-heyerka, in the district of Spasskoe Most of the coins, however, have unfortunately disappeared, with the exception of one secured by M Likhachev. There was another find in 1862 in the village of Balîmera, also in the district of Spasskoe. From this hoard the author succeeded in obtaining 48 *dirhams* They were chiefly of the dynasty of the Bûyis. In February 1886 some Eastern coins were exhibited in the windows of a money-changer at Kazan. These he purchased. They were found in the district of Chistopol and had been sold by a Tâtâr to the money-changer. The find consisted of 52 *dirhams* The earliest belonged to year 303 of the *hijra* (= 915-16 A D); the latest 381 of the *hijra* (991 A D). They are as follows:—(1) **Samanis**; two of Nasr, son of Ahmad; two of Nûh, son of Nasr; seven of Nûh, son of Mansur (2) **Bûyis**; three of Azâdu'ddaula; nine of Muayyadu'ddaula (none of these coins have been previously described); seven of Fakhru'ddaula; four of Khusrav Firûz. (3) **Dilamis**: one of Bistûn, two of Qabûs[5]

To this article a note is added by Tiesenhausen on six other coins of this dynasty, which as yet have not been described. The first five of these were found in a large hoard of silver coins discovered in 1878 in the village of Molodi, in the district of Pskov. They are now in the Hermitage at St. Petersburg, and the sixth is in the collection of General A. V Komarov.

1 A *dirham* struck in the town of Jannâb in 335 year of *hijra* (= 946-947 A D.)

2 A *dirham* struck at Al-Muhammadia in 338 of *hijra* (= 949-950).

3. A *dirham* struck at Astarâbâd in year 366 of *hijra* (= 976-77).

4. A *dirham* struck at As-Sirjân in the year 366 also.

5. A fragment of a *dirham* of Azâdu'ddaula without the name of place or year.

6 A *dirham*, struck at Shirâz in 398 year of *hijra* (1007-08).

(g) *Inscriptions obtained in an Expedition to Wâdi Hammamât, by V. Golenistcher.* The journey was undertaken in the winter of 1884-1885. The author went from Kupt (the ancient Coptos) to **Wâdi Ḥammamât**, which lies between the Nile and the Red Sea, where the rocks abound with **inscriptions.** They refer to all periods of Egyptian history, from the earliest to the days of the Persians and Ptolemies. They have been collected and published for the most part by Lepsius.[6] The author then describes his journey, from which we select some salient points At **Kusar-al-benât** he found several **graffitti** and was astonished to see among **Greek**, Coptic and Arabic inscriptions some in characters like those found in the peninsula of Sinai. Up to this time none of these have been found on the African Continent[7] Further on his journey on the rock called by the Bedouins **Jabal-Abu-Kuê** some very old hieroglyphics were met with. The first relates to the time of the king **Ameni'otep IV**, the great religious innovator A disk of the sun is figured with six rays, ending in a representation of hands. The author then gives some examples of inscriptions not included in Lepsius, and then an inscription of one **H'annu**, who visited the Valley Hammamât in the times of **Pharaoh Sankhkara** of the eleventh dynasty. After a somewhat lengthy prelude he proceeds to describe his visit to Wâdi Hammamat Another older inscription relating to the second year, the fifteenth day of the month Faofi of the king **Mentuiotep**, records the exploits of an Egyptian named Amen-em-hat A third **inscription** records the difficulty which an Egyptian named **Antef** had in reaching the valley. "My lord, (*i.e.* Pharaoh) sent me to the place Ro-hanna to bring him a beautiful

[5] Throughout these lists one is struck with the large number of coins which have not been previously described

[6] *Denkmaler aus Aegypten und Ethiopien*

[7] These are given on one of the seventeen plates with which the article is illustrated

block of the valuable stone, like which there has been nothing produced since the time of a god [8] There was no one to act as my guide to the quarry, and I could not reach it, and I was altogether occupied in seeking it. I spent eight days in the search in this mountainous country, and I did not know where I was. Then I fell down before the god Khem, the goddess Maut, the goddess Urt-khekau and all the gods of the place and offered them sacrifices." There are also hieratic *graffiti* and rude representations of animals on these rocks.

(h) *The Embassy of Spafar.*—The text is given by **A.** Ivanovski, consisting of forty-one pages in the **Manchû-Tâtâr** language. Notes are added on various readings but nothing explanatory. The original seems to refer to some relations between **Russia** and China as far back as the reign of Alexis Mikhailovich (1645-1676).

(i) *Buddhist Prayers, by I. Minayev.*—**A hymn to Avalôkitêsvara**, taken from a collection of various prayers and hymns brought by the author from **Nêpâl**. The text is written in the usual Nêpâlî alphabet on a long leaf folded in the shape of a book. As the Buddhists in Nêpâl often do not understand Sanskrit at all, or know it badly, the texts of these hymns are sometimes in a very corrupt state. Besides the above-mentioned manuscript the writer has made use of two others belonging to the Cambridge University **Library.** At the conclusion the author of the hymn is called **Charpaṭi,**[9] of whom Târânâtha speaks and who is perhaps the same as the Buddhist magician and poet.

Avalôkitesvara, to whom Charpaṭi composed the hymn, is prayed to in all Northern Asia, in Nêpâl, Tibet, China, Mongolia, and Japan. Millions of voices every minute reiterate his prayer—*Oṁ maṇi padme hûṁ.* Millions of hands have written and still write this great sentence of six syllables on the walls of temples, on flags and on rocks. Millions believe that the repetition of these words is sufficient for salvation. In the biography of **Hiuen-Tsiang** and in the travels of **Fa-hian** we have examples of the efficacy of prayer to Avalôkitêśvara.

Minayev cites a legend of how Avalôkitêśvara cured a sick Brâhman in the city of Visâla, who was learned, but an unbeliever. This legend is told in one of the redactions of the *S[illegible]* (pp. 37-39) an extract from which work is given. He always appears in splendour to believers. He has a million eyes and a hundred thousand hands. Whomsoever his splendour has touched, that person is filled with blessed joy. In the Fifth, Sixth and Seventh Centuries Avalôkitêśvara was honoured throughout all India.[10] His greatness and mercy are spoken of in the *Saddharmapuṇḍarîka,* that is, in the book translated from Sanskrit into Chinese between 265-313 A.D. The representation of Avalôkitêśvara and many legends concerning him are found in Elura, Aurangabâd, and Kanheri.

According to a legend **Avalôkitêsvara** first appeared on Mount **Patala**, a mountain, in all probability, somewhere in the Dakhan, some however place it outside of India, in China or in Tibet. In Hlassa at this time still lives the incarnation of **Avalôkitesvara** in the person of the **Dalai Lama.** There the merciful one shows himself to thousands of worshippers and addresses a few words to the richer and more eminent of them. He is also the Creator of the world. From his eyes rose the moon and sun, from his forehead Mahêśvara, from his shoulders Brahmâ, &c., from his heart Nârâyaṇa, from his teeth Sarasvatî, from his mouth the wind (Vâyu), from his feet the earth, from his stomach Varuṇa, from his navel, fire, from his left knee, Lakshmî, from his right Śrîdâ. And many other gods arose from his body for the use of the world, and they are all subject to Avalôkitêśvara. In China he is sometimes represented in the form of a **woman (Kwanyin).** Many suggestions have been made as to the origin of the *cultus* of Avalôkitêśvara, by Professors Vasilyev and **Beal** among others. Prof. **Kern** finds in it traces of a solar myth. Perhaps it is impossible to answer the question in a satisfactory way for want of materials.

(j.) *Miscellaneous Notes.*

(1) *On the graves of three Sultâns in Kashmir who died in the [illegible] century.*

(2) *The [illegible] of the [illegible]* In the chief work of the Arabian polyhistor **Jâḥiz,** among other precious specimens of Arabian eloquence, is included a *Khuṭba* or sermon of the Harijite **Abû-Hamza.**

(3) *Archæological discoveries in S[illegible]*.—A very interesting discovery has recently been made of which information has been communicated by a correspondent from Beyrout, who writes as follows:—"Two weeks ago, the Director of the Museum, Hamdi Bey, arrived from Constantinople . . . . . . with a commission to transfer the monuments which have been found here to that place. The discovery has been made in a **cave,** cut in the rock, lying about half an hour's

[8] i.e., since the time the gods ruled Egypt.

[9] Cf. Weber, *Verz. d. h. Skr. Hds.* [illegible] *Charpaṭi-nâtha* cited in *Subhâshitâvali.*

[10] See Peterson, *The [illegible]*, Bombay, 1886 page 36.

distance to the east of **Saidâ (Sidon).** Its depth is about 15 *metres* below the level of the earth. This artificial cave had not to all appearance any doors or exit, since the inner walls, formed of the rock itself, remained undisturbed. When it was accidentally opened men were let down from above, through the opening by means of a rope, for which a wooden staircase has now been substituted by Hamdi Bey. The bottom of the cave exhibits the form of a square room, surrounded on all sides by a number of **niches.** also cut in the rock. in which were found magnificent **sarcophagi** of white marble and unusually elegant workmanship. With the exception of some of Phœnician origin, the sarcophagi are **Greek.** Three of the latter are very remarkable:—The first of these was found in the eastern niche and has the form of a mausoleum of white marble, on the side of which are carved eighteen figures of weeping women, and on the lid the ceremonial of a funeral. The two others were found in the southern niches One of them is conspicuous by the incomparable beauty of its sculptures:—groups of warriors fighting carved on the sides, some coloured with red paint Another is a large mausoleum, weighing about 15 tons, and a similar one is hardly to be found in the museums of the whole world. The lid is of a convex shape and exhibits groups of horses prancing and female figures. On one of its sides sphinxes are represented. The sarcophagi are all of solid marble, but nothing has been found in them. In order to get them out Hamdi Bey proposes to construct a tunnel and they are to be sent to Constantinople by a special ship. Subsequent intelligence has been received that at Saidâ another sarcophagus has been found of black marble.

(*k*) *Criticism and Bibliography.*

(1) *The Fall of Constantinople, by Nestor Iskander of the XVth Century. Edited by the Archimandrite Leonidas. St. Petersburg*, 1866. Written in **Old Slavonic** by a man who witnessed the taking of Constantinople by the Turks in 1453. It contains many Turkish and Arabic words.

(2) *K. P. Patkanov.—Some Remarks on the Dialects of the Gipsies beyond the Caucasus.* As yet we have only received information about the European **Gipsies** Although the gipsies are undoubtedly of Indian origin, yet to which of the Indian races do they belong? Why did they leave their country? At what time did their migrations begin and by what routes did they go? The language of such a despised race would naturally be rude, and we accordingly find that they have borrowed largely from the vocabularies of the countries through which they have passed. Miklosich has done much for the philology of the European gipsies, but the Asiatic have been neglected.[11] The first chapter of the work treats of the gipsies generally; the second of the Caucasian races. **Boshâ, Karachi** and **Miutriup;** the first of which are Christians, the second Shî'as, and the third Sunnis. Of the **Bosha language** he gives 46 phrases and 238 words. It shews very strong **Armenian influences,** for the case inflections and vowel forms are Armenian. The **dialect** of the **Karachî** is more interesting: in this we have 101 phrases, a short tale and 268 words.[12] In contradistinction to that of the Boshâ it shews **many independent** forms, and **there are no traces of the influences of Persian or any other language.** The writer of the review analyses the grammatical forms and decides that the dialect is rather **Iranian than Indian. He** concludes with a **list** of some of the most valuable **Russian works** on the **Gipsies,** and congratulates **M.** Patkanov on this highly useful contribution to philology.

(3) *Peter Pozdniev. The Dervishes among the Musalmâns. Orenburg*, 1886. Reviewed severely by V. R[osen]. Most of it taken from John Brown's *The Dervishes, or Oriental Spiritualism. London*, 1883. The book is without scientific value. The author pretends to know Arabic, but his ignorance is shewn by many blunders.

(4) *Major Biddulph. The Populations of the Hindu Kush, translated by P. Lessar. Askâbâd. An excellent translation with a good ethnological map*[13]

(5) *Pestchurov A Chinese-Russian Dictionary.* contains about 6000 **Chinese** characters The editor gives a warm welcome to this valuable little book, the first of the kind which has appeared in Russia.

(6) *Dr H Fritsche On Chronology and the construction of the Calendar, with special regard to the Chinese computation of time compared with the European St Petersburg*, 1886[14] Herr Fritsche was for sixteen years director of the Observatory at Pekin, and for some time taught astronomy in a school founded by the Chinese Government on the European model. This work is based upon the lectures delivered there The information concerning the **Chinese Calendar** and **computation of time** is taken chiefly from Chinese

[11] [But see *ante*, Vols. XV and XVI.—ED

[12] The tale is here given, with elaborate philological annotations by K. Z., the anonymous author of this highly interesting review.

[13] By the well-known P Lessar. Both the name of the translator and the place of publication are noteworthy.

[14] Title in English.

sources and specially from *Van-nian-shu* (the Calendar for Ten-thousand Years), from recent calendars, astronomical journals and other publications of the Tribunal of Astronomy at Pekin, called *Tsin-tian-tsian*, and Chinese maps of the heavens, included in the work *Da-tsin-hui-dian*, which extends to sixty volumes and is the Encyclopædia of the Manchurian Dynasty. Herr Fritsche has also made use of Ideler's work, *Die Zeitrechnung der Chinesen*. At the end of the book is given a chronological list of the Chinese dynasties and Emperors.

(7) *J. Haas. Deutsch Chinesiches Conversations-Buch, nach Joseph Edkins.* Progressive lessons in the Chinese spoken language. Second Edition, Leipsic, 1886.

(8) *G Deveria. La frontière Sino-Annamite. Déscription géographique et ethnographique d'après des documents officiels Chinois, traduits pour la première fois. Paris,* 1886, *with maps.* This valuable work contains plans of the various provinces from Chinese and other sources, and is a mine of information on the country and its inhabitants.

(9) *Notice sur le livre de Barlaam et Joasaph, accompagnée d'extraits du texte grec et des versions arabe et ethiopienne, par H. Zotenberg* This work deserves the fullest attention of orientalists and students of church history generally. The object of the author is to ascertain exactly the time and place of the Greek version of this celebrated romance, the Indian origin of which admits of no doubt. Having carefully analysed the language and contents of the romance he arrives at the conclusion that the Greek redaction was made in Syria, in the first half of the seventh century, and that the belief, widely spread originally and recently reasserted by Max Müller (*Selected Essays, London* 1881), that St. John Damascenus was the author of the romance, will not stand the test of criticism. From the Greek version all the subsequent translations and imitations were made The author analyses very carefully what he calls *le système théologique* of the romance in some chapters which shew his intimate acquaintance with patristic divinity. He refers its composition to the first half of the seventh century, and judging from some special dogmatic portions, probably to the time between 620 and 634 In Chapters vi. and viii. the author speaks of the Indian sources of the tale and discusses the route by which it was brought from India to Jerusalem, traces the importance of the Monastery of Saint Sabbas in the history of the Church and finally comes to the translations of the romance into the Eastern languages. The so-called Christian version in Arabic appears to be a verbatim translation of the Greek and he thinks it already existed at the beginning of the ninth century and served as a foundation for the poetical imitation of the romance by the poet 'Abdu'l-Ḥamid. The Musalmân version in Arabic is also based on the Greek. He then goes on to speak of the Hebrew and Ethiopic, and briefly of the Armenian versions. To arrive at a complete knowledge, however, we still want a thorough examination of all the Greek texts and especially those preserved in the Synodal Library at Moscow. So also up to the present time our knowledge of the Arabic Musalmâm version is but scanty and it cannot well be judged of by the Hebrew imitation. V. R[osen] the writer of the review goes on to shew from the valuable work recently published by A. A. Tsagarelli in Russian, *Notices concerning the monuments of Georgian Literature*, of which the first part appeared at St. Petersburg last year, that it is quite probable that an early Georgian version of this romance existed, and believes that he finds its name among some of the works translated by St. Euthymius. Perhaps after all it was translated from Georgian into Greek. That the name of Barlaam was known pretty early in the Caucasus we find from the Georgian lives of St. Barlaam, preserved on Mount Athos (see Tsagarelli). The editor concludes by expressing a wish that some of the Georgian scholars in Russia would edit and translate the lives of St. John and Euthymius according to the manuscript of the year 1074 and also the two existing lives of St. Barlaam. By translating these documents they would confer a great benefit on science.

(10) *Ousâma Ibn Mounkidh, un Émir Tyrien au premier Siècle des Croisades* (1095-1188) *par Hartwig Derenbourg: Deuxième partie Texte arabe de l'autobiographie d'ousâma publié d'après le manuscrit de l'Escurial. Paris,* 1887. The Amir wrote his autobiography towards the end of his life, when he was ninety years of age. The work is of no great value from the historical point of view: importance consists in the fact that it gives a graphic picture of the life of the period. There is no chronological order in the book and the events are narrated very confusedly. The author is fairly impartial and does not deny merit to the infidels—only the longer they have lived among Musalmâns the more civilised he finds them! He has some good stories to tell as to how some of them adopted Musalmân habits. The event of his life which he deplores the most, is the loss of his library, consisting of 4,000 volumes. Everywhere the fatalism of the author breaks out. The reviewer V R[osen] expresses his

thanks to M. Derenbourg for the book and thinks historians who are not orientalists will give it a hearty welcome, but regrets that the editor did not give a photographic reproduction of the manuscript, which is unique. By comparing the page of facsimile given with the published text it is seen that the editor has made some serious mistakes.

(11.) *Dr. Friedrich Wilhelm Schwarzlose. Die Waffen der alten araber aus ihren Dichtern dargestelt, Leipzig* 1886. The reviewer V. R[osen] thinks that the author ought to have consulted one of the *Hadîses.* The book however is very learned and full of information.

(12.) *Recueil de texts relatifs à l'histoire des Seljoucides, par M. Th. Houtsma, Vol. I.* 1886.—This is the first volume of a work, in which are to be given the most important texts on this subject in the Arabic, Persian and Turkish languages. It contains the Persian texts of the history of the **Kirmân Saljûqs,** compiled by a certain Muhammad Ibrâhîm, who lived at the beginning of the seventeenth century. The text is given according to the only MS. known, unfortunately incomplete, belonging to the Royal Library at Berlin. We find in it part of the history of Chakir Bêg and Tughrul Bêg; and the history of the Kirmân Saljûqs from Qâdard (433-66) the founder of the Kirmân dynasty, till its last representative, Muhammad Shâh (A.H. 579-82). Also the history of Malik Dinâr (A.H. 591) the prince of Ghazz, who overthrew the dynasty of the Saljûqs and finally a short sketch of the fate of Kirmân till the year A.H. 619 when the power of the Qârâkhatâïs was firmly established there.

(13.) *New Publications of the Pali Text Society London.*—The publications have been delayed a whole year on account of the illness of the chief editor, Mr. Rhys-Davids. In the *Journal* of the Society we have the story how Buddha gives six of the hairs of his head to some *arhats* who asked him for something belonging to himself. The *Sandêsa Kathâ,* edited by Prof. Minayev: some interesting Notes and Queries by Rev. R. Morris, and a valuable *excursus* on Dêvadûta (Death Messengers), somewhat overloaded with references to general European folklore.

(14.) *Udânam, (hymns) edited by Paul Steinthal, London* 1885. The book is made useful by its excellent indices.

W. R. MORFILL.

NOTES AND QUERIES

NOTE ON THE DERIVATION OF GUTTA-PERCHA.

Gutta-percha. "The unknown person who first rendered the Malay word gĕtah (sap, gum, bird-lime) by the Latin word *gutta* deserves credit for some ingenuity. The accidental resemblance of the two words and the adoption of the latter by botanists may, however, be misleading as to the true derivation of the term **Gutta percha.** *Gĕtah,* in Malay, is the generic term for any kind of sticky stuff which exudes from trees, plants, leaves or fruit; *perchah* means a rag, bit or strip of any stuff. *Gĕtah perchah* would thus mean *gĕtah* in strips or pieces (after being boiled) as opposed to the semi-liquid and sticky condition of the raw substance." W. E. Maxwell, in *Journal, Straits Branch R. A. S.* No. 12, 1883, p. 207.

Gutta percha. Crawfurd in 1849 wrote as follows:—

"Malay, *gutta-percha,* the gum of the Percha tree. I was at first disposed to think that the last part of the word was *perchah,* but this word, ending also in an aspirate, is Persian, and by no means likely to enter into the name of an indigenous plant, the product of which had not been an object of foreign trade." See *Journal of the Indian Archipelago, Vol. IV. p.* 734. Against this there is the fact that the real *gutta percha* is produced by a tree called *taban* (misprinted *tuban* in Yule's *glossary,* p. 309) so that if the name is derived from that of a tree, it is one which produces "a spurious article." (Dr. Oxley in *Journ. Ind. Arch.,* Vol. I., p. 22.) But it has yet to be proved that there is a gutta-producing tree called *Percha* by the Malays. The *Isonandra* or *Dichopsis* is called by them *taban.* *Percha* does not appear as the name of a tree in the Malay dictionary of Marsden. Favre has *percha,* as the name of the tree, differing from other lexicographers by inserting a [illegible].

Pijnappel and Klinkert, authors of Malay-Dutch dictionaries, say that *percha* is the name of the tree which produces gutta-percha, but give no botanical name. Von de Wall in his *Malay-Dutch Dictionary* edited by Van der Tuuk, 1877, gives *percha* as the name of the tree which produces the best gutta-percha and *taban* as that of a tree which produces an inferior sort. The gum collected by Malays is boiled by them before it assumes the appearance which it presents as an article of commerce, and my experience is that they give the name of *perchah* to that kind of *gĕtah taban* which hardens into strips in boiling. These are stuck together and made into balls for export.

W. E. MAXWELL.

SUMMARY OF RESULTS REGARDING THE EPOCH AND ORIGIN OF THE GUPTA ERA.

BY J. F. FLEET, Bo.C.S., M.R.A.S. C.I.E.

WHILE treating more fully and systematically of the question of **the so-called Gupta era** in my Introduction to "The Gupta Inscriptions," *Corpus Inscriptionum Indicarum*, Vol. III., I have given from time to time portions of the discussion, and the results of the calculations of the dates, in this Journal. And for this reason, as also because many readers of this Journal, who are interested in the subject, will possibly not be in possession of the volume of inscriptions, it seems desirable to give here the concise statement of the final results arrived at by me.

The Epoch of the Era.

Albêrûnî tells us[1] that there was an era, known both as the Gupta era and the Valabhî era, the years of which were to be converted into years of the Saka era by adding, according to his most explicit statement, two hundred and forty-one years to the Gupta-Valabhî dates. This fixes the starting-point of the era, approximately, as having occurred when Saka-Saṁvat 241 had expired, and, by the epoch of the well-known Saka era,[2] when A.D. 319-20 was current; leaving only the determination of the exact epoch by the calculation of recorded dates. And, as regards a special point in his statements, of extreme importance, with the help of Prof. Wright, we have now obtained a translation which,—if it does not actually mean only that the Early Gupta kings had exercised so powerful a sway that, even when their dynasty came to an end, the era that had been used by them still continued in use, — is yet fully capable of that interpretation. At any rate, this translation frees us from the obligation under which we lay, by reason of M. Reinaud's rendering of the same passage, of connecting the establishment of an era with the extermination of the dynasty, and of placing the period of the Early Gupta supremacy anterior to A.D. 319, and the termination of it in that year. And the most that can be said against it, is, that it is the literal rendering of an ambiguous original, the real meaning of which must be determined by extraneous considerations.

The Mandasôr inscription of Mâlava-Saṁvat 529 expired shews[3] that we must look to somewhere about A.D. 319 for the starting-point of the era in which are recorded the dynastic dates of Kumâragupta and the other kings of the Early Gupta dynasty (see the accompanying genealogical Table),[4] and any others that are to be referred to the same uniform series with them.

The dates in the records of the Early Guptas themselves, as far as the time of Skandagupta, do not afford details for computation. But clearly belonging to the same uniform series of years, is the date contained in **the Êraṇ pillar inscription of Budhagupta.** And, converting this date into a Śaka date, in the manner indicated by Albêrûnî, we have found that, the resulting Śaka year being taken as an expired year, the details work out quite correctly.[5]

Such dates, also, are those contained in **the records of the Parivrâjaka Mahârâjas**; which, moreover, include a specific declaration that the Gupta sovereignty was then still continuing. And, calculating them in precisely the manner that is indicated by the results for the date in the Êraṇ pillar inscription, we have obtained equally correct and uniform results.[6] Also, the latest of these records, the Khôh grant of the *Mahârâja* Saṁkshôbha, *Corp. Inscr. Indic.* Vol. III. No. 25, page 112, shews that the Gupta sovereignty continued for at least two hundred and nine years. And this fact is amply sufficient to explain why, — whatever may have been its historical origin, — the era

[1] See page 243 ff. above. [2] See page 205 ff. above.

[3] *ante*, Vol. XV. page 191 ff.

[4] In this Table, below the unbroken succession, I insert the names of Budhagupta and Bhânugupta; because there is at least a strong possibility that they were descended from the same stock, though their connection with each other, and with Skandagupta, has not as yet been made clear; and because the date of Budhagupta, at least, has always been accepted as bearing on the chronological question. For the *birudas* or second names given in brackets under the names of Chandragupta I. and Samudragupta, and for a few other points, I must refer to my remarks in *Corp. Inscr. Indic.* Vol. III. Introduction, page 18.

[5] *ante*, Vol. XVI. page 151 f.

[6] Page 331 ff. above.

used in all these records should eventually come to be popularly known as the Gupta era.

Such dates, again, are those contained in **the inscriptions of Sivadêva I. and Mânadêva of Nêpâl.** And, that the first of them is recorded in the era in question, is shewn by the dates, in the Harsha era, for Aṁśuvarman, the contemporary of Śivadêva I.;[7] while, with the same treatment, the details of the second of them work out quite correctly.[8]

Such another date is that contained in **the Môrbî grant of Jâiṅka.** And the details of this, again, work out correctly with the same treatment.[9]

Such a series of dates, too, is that contained in **the records of the Valabhî family.** And, with a slight modification, due to a change in the scheme of the year, easily explainable, the same treatment gives correct results for the date in the Kaira grant of Dharasêna IV. of this family, of the year 330;[10] the only one, at present, that affords exact details for calculation. Also, these records give us a succession of twelve generations,[11] commencing with the *Sênâpati* Bhaṭârka, and ending with king Śîlâditya VII., with dates ranging from the year 207 to the year 447. For the first six or seven generations, the members of this family were only feudatory *Sênâpatis* and *Mahârâjas*, without the authority to establish an era of their own. And, as a matter of fact, the date of the year 207 for the *Mahârâja* Dhruvasêna I., in the second generation, proves that the era did not run from the rise to power of his father Bhaṭârka, the founder of the family, but must have been adopted from some outside source. While, on the other hand, the long duration of this family, coupled with the fact that several of their charters were issued from the city of Valabhî itself,[12] and all of them belong either to that vicinity or to the neighbouring parts of Gujarât, is amply sufficient to explain why the era used by them should eventually come to be popularly known, in those parts, as the Valabhî era.

And, finally, undeniable instances of the actual use of an era known as the Valabhî era, as late as the thirteenth century A.D., are furnished by **the Verâwal inscriptions**[13] dated in Valabhî-Saṁvat 927 and 945. For the details of the earlier of these two dates, correct results can be obtained by applying the same slightly anomalous treatment that applies to the date in the Kaira grant of Dharasêna IV. of the year 330. The latter of them, however, goes far beyond this. Not only does it fix the epoch of the era approximately, and in accordance with Albêrûnî's statement, through the concomitant mention of the equivalent Vikrama and Hijra years; but also the details of it are such as to prove that the epoch of the era was exactly when Śaka-Saṁvat 241 had expired, and A.D. 319-20 was current. And it has furnished, in fact, the exact analogy, in accordance with which all dates in the Gupta-Valabhî era, that follow the true and original northern scheme of its years, have to be tested.

All this uniform agreement of results cannot be attributed to mere coincidence. But we must take it now, as a settled matter, that all the dates in question belong to one and the same era, running from the epoch of A.D. 319-20. And, irrespective of the question whether the era was actually established by the Early Guptas themselves, **we must refer the rise of the Early Gupta power to somewhere about A.D. 319, instead of placing the period of their supremacy anterior to that year, and their downfall in it.**

A few concluding words, however, seem necessary as to the exact years of the Christian era, which represent respectively the epoch or year 0, and the commencement or first current year, of the Gupta-Valabhî era.

---

[7] *ante*, Vol. XV. p. 192 f

[8] Page 210 f above.

[9] Page 211 ff. above.

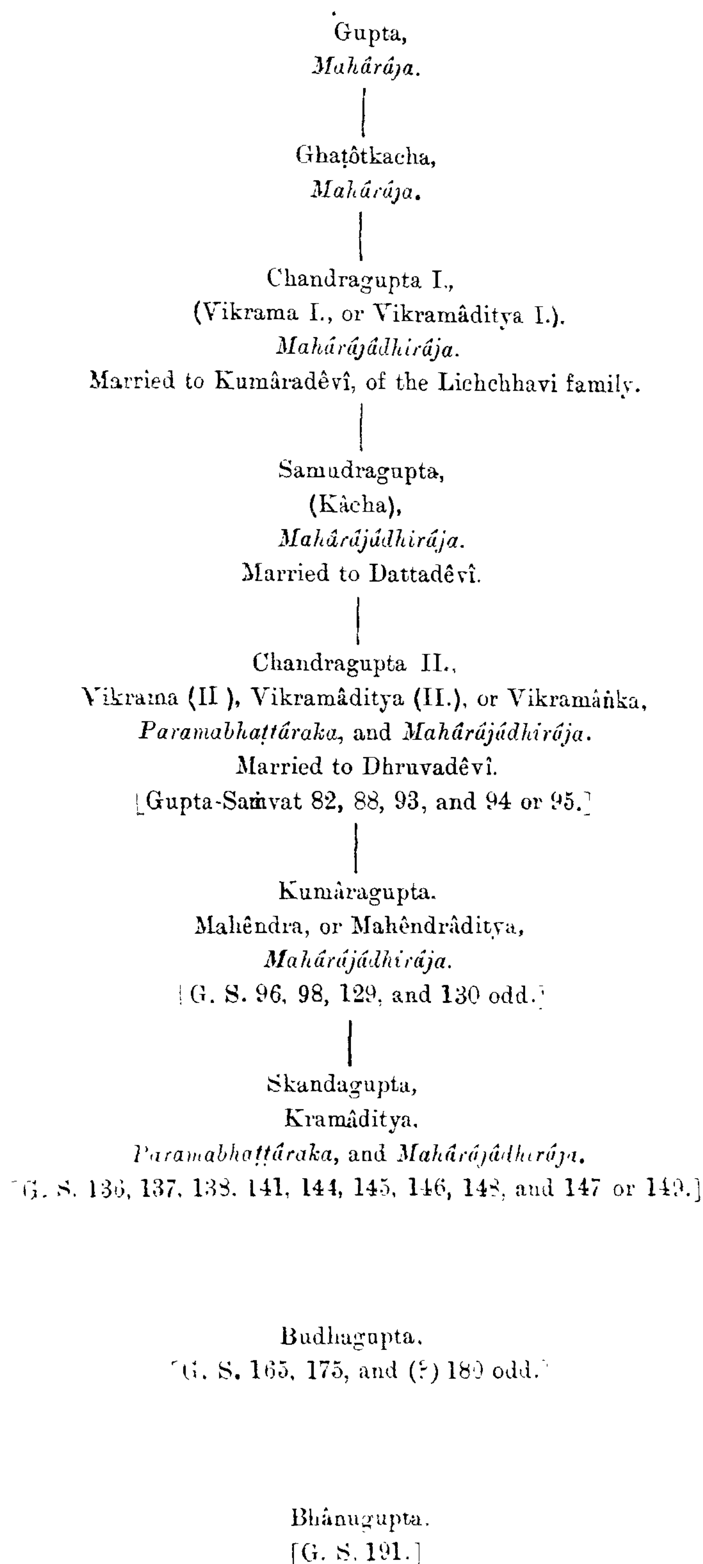
[10] *ante*, Vol. XV p. 142 ff ; and see, more fully, *Corp. Inscr. Indic.* Vol. III Introd. pp. 72 f, 93 ff

[11] See the Genealogy, *ante*, Vol. XV. p. 273

[12] *e.g.* the grants of Dhruvasêna I., of the year 207 (*ante* Vol V p. 204); of Guhasena, of the year 248 (*ante*, Vol V. p 206, and *Archæol. Surv. West. Ind.* Vol. III. p. 93); of Dharasêna II., of the year 252 (*ante*, Vol. VII. p. 68; Vol. VIII. p. 301; Vol. XV. p. 187; and *Corp Inscr. Indic.* Vol. III. No. 38, p. 164); of Śilâditya I., of the year 286 (*Jour. Bo Br R. As. Soc.* Vol. XI. p. 359, and *ante*, Vol XIV. p. 327), and of the year 290 (*ante*, Vol. IX. p. 237); of Dhruvasêna II., of the year 310 (*ante*, Vol. IV. p. 12); and of Dharasêna IV., of the year 326 (*ante*, Vol. I. p. 14, and *Jour. Bo. Br. R As. Soc.* Vol X. p. 66).

[13] *ante*, Vol. XVI. pp. 147 ff., 152 ff.

Genealogy of the Early Gupta Kings.



Gupta,
Mahârâja.

Ghaṭôtkacha,
Mahârâja.

Chandragupta I.,
(Vikrama I., or Vikramâditya I.).
Mahârâjâdhirâja.
Married to Kumâradêvî, of the Lichchhavi family.

Samudragupta,
(Kâcha),
Mahârâjâdhirâja.
Married to Dattadêvî.

Chandragupta II.,
Vikrama (II.), Vikramâditya (II.), or Vikramâṅka,
Paramabhaṭṭâraka, and *Mahârâjâdhirâja.*
Married to Dhruvadêvî.
[Gupta-Saṁvat 82, 88, 93, and 94 or 95.]

Kumâragupta.
Mahêndra, or Mahêndrâditya,
Mahârâjâdhirâja.
[G. S. 96, 98, 129, and 130 odd.]

Skandagupta,
Kramâditya.
Paramabhaṭṭâraka, and *Mahârâjâdhirâja.*
[G. S. 136, 137, 138, 141, 144, 145, 146, 148, and 147 or 149.]

Budhagupta.
[G. S. 165, 175, and (?) 180 odd.]

Bhânugupta.
[G. S. 191.]

Taking the years quoted in the records without qualification, as current years, we have obtained the following results:[14]—

By the Êraṇ pillar inscription of Budhagupta, Gupta-Saṁvat 165 current = A.D. 484-85 current;[15]—

By the Parivrâjaka grants, 156 current = A.D. 475-76 current,[16] 163 current = A.D. 482-83 current,[17] 191 current = A.D. 510-11 current,[18] and 209 current = A.D. 528-29 current;[19]—

By the Nêpâl inscription of Mânadêva, 386 current = A.D. 705-706 current;[20]—

And by the Verâwal inscription of Arjunadêva, 945 current = A.D. 1264-65 current.[21] And all these equations give the uniform result of

Gupta-Valabhî-Saṁvat 0 =
A.D. 319-20 current,

or more precisely, by the Saka year, the period[22] from the 9th March, A.D. 319, to the 25th February, A. D. 320; and

Gupta-Valabhî-Saṁvat 1 current =
A.D. 320-21 current,

or more precisely, by the Saka year, the period from the 26th February, A.D. 320, to the 15th March, A.D. 321.

The results obtained from the Kaira grant of the year 330 and the Verâwal inscription of Valabhî-Saṁvat 927, differ slightly from the above, and are — Gupta-Valabhî-Saṁvat 330 current = A.D. 648-49 current,[23] and Valabhî-Saṁvat 927 current = A.D. 1245-46 current.[24] In these two instances the difference is due to a local alteration of the true and original scheme of the Gupta year; made in such a way that each subsequent year commenced with the Kârttika śukla 1 immediately preceding the true commencement of the year with Chaitra śukla 1. And for these two dates, and any that may be found hereafter to belong to the same class, we have to apply the equations of Gupta-Valabhî-Saṁvat 0 = A.D. 318-19 current, or more precisely, by the southern Vikrama year, the period[25] from the 12th October, A.D. 318, to the 30th September, A.D. 319; and Gupta-Valabhî-Saṁvat 1 current = A.D. 319-20 current, or more precisely, by the southern Vikrama year, the period from the 1st October, A.D. 319, to the 18th October, A.D. 320.

These two instances, however, are purely exceptional ones. And, in the case of all dates in the era referable to the true and original scheme of its years, we have to apply the epoch of A.D. 319-20, and to treat the years of the era as northern years, commencing with Chaitra śukla 1.

The equation between the epoch of the Gupta-Valabhî era and the Christian era, is not intrinsically dependent on any reference to the Saka era; and it could be established directly by European Tables. In this inquiry, however, it has been established through results that have been worked out from Hindu Tables which are arranged for the Saka era according to expired years; and, in order to use those Tables, the given Gupta-Valabhî years had to be converted into expired Saka years. The process, however, has not converted the given Gupta-Valabhî years themselves into expired years. But what has been done has simply been, first, by the addition of a uniform running difference, to obtain the current Saka year corresponding to each given current Gupta-Valabhî year; and then, in the usual way, to take the immediately preceding Saka year as the expired year that is required as the basis of the calculation. Thus, the details of the date in the Êraṇ pillar inscription of Budhagupta, which really belong to Gupta-Saṁvat 165 + 242 = Saka-Saṁvat 407 current, have been calculated with the basis of Saka-Saṁvat 406 expired; and the details of the other dates in the same way.

---

[14] I exclude the Bhunarâ pillar inscription, as proving nothing definite, because the Gupta year is not given in it.

[15] Or, more precisely, by the Saka year, as commencing with Chaitra śukla 1, the period (see *Indian Eras*, p. 173) from the 14th March, A.D. 484, to the 2nd March, A.D. 485.—The dates given in these notes are quoted as approximately correct; they may, or may not, be the exact dates.

[16] Or, in the same way, the period from the 21st February, A.D. 475, to the 11th March, A.D. 476.

[17] Or, in the same way, the period from the 6th March, A.D. 482, to the 22nd February, A.D. 483.

[18] Or, in the same way, the period from the 25th February, A.D. 510, to 15th March, A.D. 511.

[19] Or, in the same way, the period from the 8th March A.D. 528, to the 24th February, A.D. 529.

[20] Or, in the same way, the period from the 1st March, A.D. 705, to the 20th March, A.D. 706.

[21] Or, in the same way, the period from the 1st March, A.D. 1264, to the 19th March, A.D. 1265.

[22] Here I owe the initial and ending dates, which it was desirable to have exactly, to Mr Sh. B. Dikshit.

[23] Or, more precisely, by the southern Vikrama year as commencing with Kârttika śukla 1, the period (see C. Patell's *Chronology*, p. 122) from the 24th September, A.D. 648, to the 12th October, A.D. 649.

[24] Or, in the same way, the period from the 23rd October, A.D. 1245, to the 12th October, A.D. 1246.

[25] Here, again, I owe the exact dates to Mr Sh. B. Dikshit.

Now, in the case of an era used specially by astronomers for their technical processes, as the Śaka era was, since we have to work with expired years, it is natural enough that the Tables should be arranged accordingly. And possibly, after a certain period, and in certain parts of India, we may have to interpret any given year of such an era as an expired year, whether it is expressly denoted as such or not.[26] But the same rule does not hold good in the case of eras that are not actually used for astronomical processes, though they are quoted in connection with details fixed by such processes. Such an era is the Vikrama era.[27] And,—though the expired years of this era might be quoted, as is shewn, for instance, by lines 19 and 21 of the Mandasôr inscription of Mâlava-Saṁvat 529 expired, *Corp. Inscr. Indic.* Vol. III. No. 18, page 79,[28] and by line 21 of the Kaḍî grant of Jayantasiṁha of Vikrama-Saṁvat 1280 expired,[29]—yet that, occasionally at least, the current years were used, is proved by the Gwâlior Sâsbahû temple inscription of Mahîpâla,[30] in which we have first in words the number of years expired, 1149, and then, partially in words and fully in figures, the number of the current year, 1150. Such an era, again, is the Gupta-Valabhî era; or, at least, we have not as yet obtained the slightest indication of its ever having been used by astronomers as the basis of calculations. And in the absence of the use of any word meaning "expired" in connection with the year in a Gupta-Valabhî date, it is only reasonable that we should follow the ordinary rules of interpretation, and render the original passage as denoting a current year.

In one instance only, among the Gupta-Valabhî dates at present known, is a word meaning "expired" used in connection with the year. This exceptional instance is the Môrbî grant of Jâiṅka, in which an eclipse of the sun is recorded as having occurred when the year 585 had passed by. Unfortunately, the month and *tithi*, in and on which the eclipse occurred, are not specified; nor even the week-day. And, as we have seen at page 212f. above, it might be possible to identify the solar eclipse of this record with that of the 10th November, A.D. 904. In that case, the given year 585 expired, and the indicated year 586 current, would be equivalent to A.D. 904-905 current. It would then be as an expired year, not a current one, that the year 165 of the Êraṇ pillar inscription of Budha-gupta is equivalent to A.D. 484-85 current, and so on with all the other dates. And we should have to apply, in the case of all dates in the era referable to the true and original scheme of its years, the epoch of A.D. 318-19 current, or more precisely, by the Śaka year, the period[31] from the 18th February, A.D. 318, to the 8th March, A.D. 319; and, in the case of dates belonging to the same class with those of the Kaira grant of the year 330 and the Verâwal inscription of Valabhî-Saṁvat 927, the epoch of A.D. 317-18 current, or more precisely, by the Vikrama year, the period from the 23rd September, A.D. 317, to the 11th October, A.D. 318. But we have also seen that the solar eclipse in question can be far more satisfactorily identified with that which occurred on the 7th May, A.D. 905; to do which, we have to take the given year 585 expired, and the indicated year 586 current, as equivalent to A.D. 905-906 current. And this record, therefore, furnishes strong and instructive corroboration of my view that, in the absence of any distinct specification to the contrary, **we must interpret the years in Gupta-Valabhî dates as current years.**

The Origin of the Era.

In taking A.D. 318-19 as the date of the rise of the Early Gupta dynasty, and either as the epoch or as the commencement of the era,—a result which, in respect of the second point, was only one year or two years different from the truth,—Mr. Fergusson's theory[32] was that

---

[26] A clear instance of this is furnished by the date in the Dêogaḍh inscription of Bhôjadêva (see page 23f. above), By the literal rules of translation, the given Śaka year, 784, has to be interpreted as a current year; but, for the calculation, it has to be applied as an expired year.

[27] The present Tables of this era, however, seem to be arranged, like those of the Śaka era, according to expired years. And some of the almanacs quoted at page 205ff. above, give them in the same way.

[28] And *ante*, Vol. XV. p. 194 ff

[29] *ante*, Vol. VI. p. 197.

[30] For the full reading and translation of the date see *ante*, Vol. XV pp. 41, 46, and *Corp. Inscr. Indic.* Vol III. Texts and Translations, page 22, note 5.

[31] Here, again, I owe the exact initial and ending dates to Mr. Sh. B. Dikshit

[32] *Jour. R. As Soc* N. S Vol. IV. p. 104, and Vol XII. p. 271.

the era did not date from the accession of a king, or from any particular historical event. And he selected this particular year on the assumption, — based apparently on a suggestion thrown out by Dr. Bhau Daji[33] in 1864, — that the commencement of the era was regulated only by the completion of four of Jupiter's Sixty-Year Cycles from the commencement of the Saka era, in order that there might be always an even and convenient difference of two hundred and forty years between the Saka and Gupta dates. This, however, could be arranged only by applying the Sixty-Year Cycle as used now in Southern India, where it is not in reality an astronomical cycle at all; since there the cyclic years run on in regular succession, without any adjustment of them to the motion of the planet, with reference to his sign-passing or his heliacal rising, by the omission of a year on certain occasions, and are taken, for the civil reckoning, as commencing and ending with the luni-solar years. According to the present southern luni-solar system, Saka-Samvat 1 current (A.D. 78-79) was the Bahudhanya *saṁvatsara*; and Saka-Samvat 241 current (A.D. 318-19) was again the same cyclic year, Bahudhânya; and, by this means, some justification might be found for Mr. Fergusson's view. But I have now shewn that the real epoch of the Gupta era was A.D. 319-20, which does not correspond to Saka-Samvat 241 current, so that there was, in reality, a completion of four cycles and one year, even by the southern luni-solar system; and this, alone, is fatal to his view on this point. And, in addition to this, amongst other inscriptions, the Wanî grant of the Rashṭrakûṭa king Govinda III., which records[34] that in Saka-Samvat 733 the Vyaya *saṁvatsara* was current on the full-moon day of the month Vaiśâkha (April-May), and the Radhanpur grant of the same king, which records[35] that the Sarvajit *saṁvatsara*, the next in the cycle, was current on the new-moon day of the month Sravana (July-August) in the same year, shew very plainly that the present arrangement was not the original one, even in Southern India; as also, still more pointedly, does another grant of the same king, dated in Saka-Samvat 726 (expired), the full bearing of which has been explained at page 141 f. above.

If the Sixty-Year Cycle was in use at all at the time of the commencement of the Gupta era, then, in Northern India, and in connection with a northern era, — which the Gupta era emphatically was, — the only system that can have been followed is the regular mean-sign system, according to which the cycle is truly an astronomical cycle, and the *saṁvatsaras* are regulated entirely and only by the passing of Jupiter from one sign of the zodiac into another. By Mr. Sh. B. Dikshit's calculations, from the *Sûrya-Siddhânta*, at the commencement of Saka-Saṁvat 1 current (A.D. 78-79), the *saṁvatsara* was Sukla, the third in the cycle; and it was followed by Pramôda, the fourth, on the full-moon day of the month Pausha, in December, A.D. 78. And, at the commencement of Saka-Saṁvat 241 current (A.D. 318-19), the *saṁvatsara* was Aṅgiras, the sixth in the cycle; which was followed by Srîmukha, the seventh, on the ninth lunar day of the bright fortnight of the month Phâlguna in February, A.D. 319. Thus, four complete cycles, and three *saṁvatsaras* over, passed between Saka-Saṁvat 1 and 241; and the epoch of the Gupta era, unless it were placed three years earlier, in A.D. 315-16, could not be determined by any consideration of this kind.

Nor can it have been determined by the Twelve-Year Cycle of Jupiter, the years of which may be regulated either by the passing of Jupiter from one sign of the zodiac to another; or, as was the more ancient custom, by his heliacal rising in a particular lunar mansion.[36] Taking first the mean-sign system, Mr. Sh. B. Dikshit finds that, at the commencement of Saka-Saṁvat 1 current (A.D. 78-79), the *saṁvatsara* was Mahâ-Âśvayuja, the twelfth in the cycle; which was followed by Mahâ-Kârttika, the first of the next cycle, on, as before, the full-moon day of the month Pausha, in December, A.D. 78. While, at the commencement of Saka-Saṁvat 241 current (A.D. 318-19), the *saṁvatsara* was Mahâ-Pausha, the third in the cycle; which was followed by Mahâ-Mâgha, the fourth, on, as before, the ninth lunar day of the bright fortnight of the

[33] Jour. Bo. Br. R. As. Soc. Vol. VIII. p. 246.
[34] [illegible] Vol. XI. p. 159 [illegible]
[35] [illegible] Vol. VI. p. 68, [illegible]

[36] See Mr. Sh. B. Dikshit's paper, published at pp. 1 ff. and 312 ff. above.

month Phâlguna, in February, A.D. 319. And, by the heliacal-rising system, at the commencement of Saka-Saṁvat 1 current (A.D. 78-79), the *saṁvatsara* was Mahâ-Bhâdrapada, the eleventh in the cycle; which was followed by Mahâ-Aśvayuja, the twelfth, on the twelfth lunar day of the bright fortnight of the month Vaiśâkha, in April, A.D. 78, soon after the commencement of the year. While, at the commencement of Saka-Saṁvat 241 current (A.D. 318-19), the *saṁvatsara* was Mahâ-Pausha, the third in the cycle; which was followed by Mahâ-Mâgha, the fourth, on the sixth lunar day of the bright fortnight of the month Srâvaṇa, in July, A.D. 318. Thus, between Saka-Saṁvat 1 and Saka-Saṁvat 241, there had expired twenty complete cycles and three *saṁvatsaras* over by the mean-sign system, and twenty cycles and four *saṁvatsaras* over by the heliacal-rising system; and the epoch of the Gupta era could not be determined by any consideration connected with this cycle, unless it should be placed in A.D. 315-16 or A.D. 314-15.

It is thus evident that the so-called Gupta era is not one which, due originally to some event occurring only in approximation to A.D. 318, 319, or 320, had its exact epoch determined, for convenience of comparison with the Saka era, by adopting the expiration of an even number of cycles of the planet Jupiter, either of the Twelve-Year or of the Sixty-Year system. And no other chronological or astronomical considerations suggest themselves, for the selection of the exact epoch that has been proved. **Its origin, therefore, must be found in some historical event, which occurred actually in A.D. 320,** or so closely to that time that, when the scheme of the northern Saka year was applied, the reckoning of the era was not affected to any appreciable extent. And here, though the point is not conclusive either way, we must bear in mind that, as I have shewn fully in *Corp. Inscr. Indic.* Vol. III. page 19 ff., in the epigraphical references to the era there is nothing at all, at any early period, to connect the name of the Early Guptas with it, especially as the founders of it; and nothing to connect the name of Valabhî with it, until at least nine centuries after its establishment.

We must also bear in mind that it is certain **that the era cannot have been established by any member of the Valabhî family**; the reasons for this being — (1) that, for the first six or seven generations, the members of this family were mere feudatory *Sênâpatis* and *Mahârâjas*, without the authority to establish an era of their own; — and (2) that the date of the year 207 for the *Mahârâja* Dhruvasêna I., in the second generation, proves that the reckoning runs from long before the first rise to power of his father, the *Sênâpati* Bhaṭârka, by whom the family was founded.

In the same way, the first two members of the Early Gupta family, Gupta and Ghaṭôtkacha, held only the feudatory rank of *Mahârâja*, and had not the authority to establish an era. The first paramount sovereign in the family was Ghaṭôtkacha's son, Chandragupta I. And, if a Gupta era, truly and properly so called, was devised in his time, then as its starting-point there would have been selected the commencement of his reign, not the date of the rise to power of his first recorded ancestor, the *Mahârâja* Gupta; as was done in the case of the Harsha era, which disregards, not only three generations of *Mahârâjas* at the commencement of the genealogy, but even the reigns of two kings, Prabhâkaravardhana and Râjyavardhana II., and runs from the commencement of the reign of the third paramount sovereign, Harshavardhana himself. So, also, when the Western Châlukya king Vikramâditya VI. established a new era under the name of the Châlukya-Vikrama-Kala,[37] he disregarded the reigns of all his ancestors, and made the era date from his own accession to the throne. The dates in the Early Gupta records shew clearly that the Gupta era cannot, under any circumstances, run from the accession of any member of the dynasty later than Chandragupta I. And there are essential difficulties, under any normal conditions, in the way of making the era date from the commencement of his reign; *i.e.* of taking A.D. 320-21 as his first current year. For his great-grandson, Kumâragupta, we have dates in the era, ranging from the year 96 to the year 130 odd,[38] of which we may take, as the latest

[37] See *ante*, Vol. VIII. p. 187 ff.

[38] See *ante*, Vol. XV. p. 191.

certain one,[39] that of the year 129, recorded in the Mankuwâr inscription, *Corp. Inscr. Indic.* Vol. III. No 11, page 45. And, as we ought to assume that Chandragupta I. was at least twenty years old when his reign commenced, this gives us a period of a hundred and forty-nine years, which, spread over four generations, gives to each a duration of thirty-seven years and a quarter, or nearly half as much again as the usually accepted average maximum rate of twenty-five years for a Hindu generation. This, too, is only dealing with the question of generations. If we take the period of a hundred and twenty-nine years only, from the commencement of the reign of Chandragupta I. to nearly the end of that of Kumâragupta,—which gives an average of thirty-two years and a quarter for each of the four reigns,—then, as compared with the average duration, twenty years at the outside, of a Hindu reign, the excess is still more remarkable. And almost exactly the same results are obtained, if, instead of considering four generations and reigns, down to the end of the time of Kumâragupta, we take the latest certain date[40] of Chandragupta II., *viz.* the year 93 given in the Sâñchi inscription, *Corp. Inscr. Indic.* Vol. III. No. 5, page 29, and spread the period of ninety-three years over three reigns, or, on the same assumption as regards the age of Chandragupta I., the period of a hundred and thirteen years over three generations. On the question of generations, I will not base any particularly special objection. An analogy for an abnormal average rate might be deduced from the Western Châlukya genealogy,[41] in which we have Saka-Saṁvat[42] 930 for the commencement of the reign of Vikramâditya V., and Saka-Saṁvat 1060 for the end of the reign, and it may safely be assumed the death, of Sômêśvara III. in the third generation after him. If we take it that Vikramâditya V. was twenty years old in Saka-Saṁvat 930, we have one hundred and fifty years for the four generations, or an average of thirty-seven years and a half for each. But, from Saka-Saṁvat 930 to 1060, there were six reigns; with an average of twenty-five years, or seven less than we should have to allot to each of the four Early Gupta kings in question. And even this result is due chiefly to the extraordinarily long reign of Vikramâditya VI., for fifty-two years, from Saka-Saṁvat 997 to 1048. If we take the whole period of the Western Châlukya dynasty, covering one hundred and ninety years, from Saka-Saṁvat 895, the first year of Taila II., down to Saka-Saṁvat 1084, as the end of the reign and the death of Taila III.,[43] we have ten reigns, with an average duration of just nineteen years each. An average of thirty-two years for four successive reigns of Hindu fathers and sons, seems, from every point of view, an impossibility. And this prevents our making the Gupta era run from the commencement of the reign of Chandragupta I. We must, therefore, accept it as certain that **the Early Guptas only adopted the era of some other dynasty**. And we must look for its origin to some extraneous source.

Now, it is evident that **the Early Guptas rose to power first as feudatory Mahârâjas**, the third of whom, Chandragupta I., while holding that same rank, established his independence; so that, his successors maintaining the same position, the paramount titles, and not his original feudatory title, are always coupled with his name in the genealogical passages in their records. And, from the *Mahârâja* Gupta down to Kumâragupta, we have two feudatory governments and four reigns; which, at the average rate of twenty years, almost fill up the period indicated by the latest certain date for Kumâragupta, and, by a coincidence, place the commencement of the government of the *Mahârâja* Gupta very near to A.D. 320. If, then, we could determine the paramount sovereign of whom the *Mahârâja* Gupta was a feudatory, we should have in him the founder of the era; provided we could only shew that his successors also

[39] And it must be very nearly his latest date; for he had then been reigning for at least thirty-three full years, and we have the date of the year 136 for his son and successor, Skandagupta. — The selection of any later date would, of course, only intensify the force of the argument.

[40] The silver coins (see *ante*, Vol. XIV. p 65f) seem to give the year 94 or 95, but the latest absolutely certain date is the one that I quote. Here again, the adoption of a later date would only strengthen the argument.

[41] See my *Dynasties of the Kanarese Districts*, p. 18, Table.

[42] The exact year was doubtful when I wrote the book referred to in the preceding note; but it has now been established by the Kauthêm grant (*ante*, Vol. XVI. p. 15ff.)

[43] I exclude the short reign of Sômêśvara IV., from Saka-Saṁvat 1104 to about 1111, because there had been meanwhile an interruption of the Western Châlukya power by the Kalachuris of the Dekkan.

dated their records in it. And the only difficulty then remaining would be,—When Chandragupta I. and his descendants had asserted themselves as independent sovereigns, by rebellion against their masters, why should they continue to use a purely dynastic era, which had only been running for a short time and had certainly not become an astronomical era, and which would always remind them of the originally subordinate status of their ancestors; instead of establishing a new era of their own, or instead of adopting some well-known era, of general use, which could evoke no reminiscence of a humiliating kind?[44] The Early Gupta records, however, throw no light on this point; nor can we expect any, unless we obtain inscriptions of the time of the *Mahârâjas* Gupta and Ghatôtkacha, or of the early years of Chandragupta I. And at present, in connection with India itself, we know of no king the commencement of whose reign can with any certainty be referred to A.D. 320; and of no historical event to which we can safely allot that date. Nor, while the Early Gupta sovereignty continued, is there any indication of the Gupta era having been used in India by any other independent dynasty. The nearest approximation to the year in question that we have, is in the case of the Kalachuri dynasty of Central India; in respect of which certain points in the records of the Parivrâjaka *Mahârâjas* and the *Mahârâjas* of Uchchakalpa do tend to support the actual existence, in the Early Gupta period, of a Kalachuri era, and, consequently, of Kalachuri kings under some earlier name.[45] The Kalachuri dates, however, certainly cannot be referred to the Gupta epoch. And circumstances indicate that the dominion of the Kalachuri kings at that time was confined entirely to the more eastern parts of Central India; so that they were only contemporaries of the northern dynasty of which the Early Guptas were at first the servants. Mr. Fergusson's opinion,[46] again, was in the direction of the era being established, with the foundation of Valabhî as a new capital of Western India, by the Andhra king Gôtamiputra, whom he placed[47] between A.D. 312 and 333; the *Mahârâja* Gupta being a feudatory of him or of one of his immediate successors. But the chronology of the Andhras,—who, at the best, seem to have been too essentially a western and southern dynasty to be concerned in any leading way with the history of Northern India,—still remains to be finally determined. And Dr. R. G. Bhandarkar, who has given more consideration to the subject than anyone else as yet, places Gôtamiputra about two centuries earlier,[48] in the period A.D. 133 to 154; and, according to his view of the early chronology, we should have to refer the establishment of the Gupta era to some event connected with either the downfall of the Kshatrapas of Saurâshtra or the history of the Râshtrakûtas of the Dekkan. The Kshatrapas, however, certainly did not use the Gupta era; and there is not the slightest particle of evidence that the Râshtrakûtas ever had an era of their own. There can be but little doubt that the real paramount lords of the *Mahârâjas* Gupta and Ghatôtkacha, and at first of Chandragupta I. himself, were some of the later Indo-Scythian kings of Northern India, whose duration is certain at any rate up to the time of Samudragupta. These Indo-Scythian kings must have used the Śaka era. But this era, again, had not then become an astronomical era;[49] and there was, therefore, no special inducement for the Early Guptas to adopt it; but, on the contrary, there was an objection of the kind already indicated. Further, the Vikrama era was not an astronomical era; and the use of it, in those days, under the name of the Mâlava era, was probably confined to the different sections of the Mâlava tribe, and to territories of which no part was brought under the Early Gupta sway until the time of Samudragupta. And, finally, the Kaliyuga era in all probability was used only by the astronomers of Ujjain for purely technical purposes; and was not known at all in the territories in which the Early Guptas first rose to power. In fact, **in India itself there was no already existing era which**

[44] An objection of this sort does not apply to the use of the Gupta era by the Valabhî family. The *Sênâpati* Bhatârka drove out the invaders who had overthrown the Gupta sovereignty in Western India; and may possibly have been himself the feudatory of some descendant of the original Gupta stock. And when Dharasena IV. became a paramount sovereign, it was on the disruption of the Kanauj kingdom. At neither point was there any reason for the members of this family to feel any aversion to the Gupta era.

[45] See page 331 above, note 1

[46] *Jour. R. As. Soc.* N. S., Vol. IV. p. 128 f.

[47] *id.* p. 122.

[48] *Early History of the Dekkan*, p. 27.

[49] See page 209 above.

would recommend itself to the Early Guptas. And we have next to inquire whether there may have been any such era beyond the limits of India proper.

By a comparison of the dates of Śivadêva I. and Amśuvarman, at page 210 above, I have already shewn, in a general way, that **the Gupta era was in use beyond the north-eastern frontier of India, in Nêpâl**; a fact which is duly corroborated by the results for the date in the inscription of Mânadêva of the year 386. We must, therefore, now see what more particular information can be gathered from the epigraphical records of that country.[50]

In the *Corp. Inscr. Indic.* Vol. III. Appendix IV., I have given an account of such of the **inscriptions from Nêpâl** as have any bearing on the question now under consideration, this account being recast and enlarged from my original paper on "The Chronology of the Early Rulers of Nêpâl," published in this Journal, Vol. XIV. page 342ff., a reference to which will suffice for present purposes. The actual dates of them range from A.D. 635 to 854; and give a fairly clear idea of the history of the reigning families of the country during that period. They shew two separate houses, ruling contemporaneously, and mostly on equal terms; and each preserving certain distinctive characteristics of its own. One of them was a family, the name of which is not mentioned in the inscriptions, but which in the *Vamśâvali* is called the Ṭhâkurî family, issuing its charters from the house or palace called Kailâsakûṭabhavana, and uniformly using the Harsha era. The other was **the Lichchhavi family,** distinctly so named in the inscriptions, and in the *Vamśâvali* allotted to the Sûryavamśa or solar lineage, issuing its charters from the house or palace called Mânagṛiha, and **uniformly using an era with the Gupta epoch.**

That **the Lichchhavi clan or tribe was one of great antiquity and power,** in the direction of Nêpâl, is shewn by the writings of Fa-Hian and Hiuen-Tsiang,[51] which connect them with events that preceded the *nirvâṇa* of Buddha. No exception, therefore, need be taken to the general outlines of the long account in one of the inscriptions, which, so far as the Nêpâl branch of the tribe is concerned, gives us the first really historical member of it in the person of Jayadêva I., who, by the ordinary allowance of time for each Hindu generation, must be referred to the period A.D. 330 to 355.

Proof of **friendly relations between the Early Guptas and the Lichchhavis,** at an early time, is given by the marriage of Chandragupta I. with Kumâradêvî, the daughter of Lichchhavi or of a Lichchhavi king.

[50] And here we may note that the Kings of Valabhi can have had nothing to do either with the introduction of an era into Nepâl, or with the borrowing of an era from that country. As I have already had occasion to remark, the members of the Valabhi family, for the first six or seven generations, inclusive of Bhaṭârka, were mere feudatory *Sênâpatis* and *Mahârâjas*, and these members of the family, at any rate, cannot possibly have conquered Nepâl, or even have extended their territory up to the confines of that country. The first of the family who claimed to be a paramount sovereign is Dharasêna IV., with the dates of 326 and 330, and with the titles of *Paramabhaṭṭâraka*, *Mahârâjâdhirâja*, and *Paramêśvara* in common with all his successors, and also with that of *Chakravartin*, which, not being assumed by any of his successors, may perhaps indicate that his power was more extensive than theirs ever was. Now, in passing, if we refer his first date of 326 to the epoch of A.D. 319-20, the result, A.D. 645-46, brings us to a very suitable period indeed for him to assume the position and titles of a paramount sovereign, i.e., to the commencement of the anarchy which, as Matwanlin tells us (*ante*, Vol. IX. p. 20), attended the death of Harshavardhana, the warlike lord of all the region of the north. It ended in the complete disruption, for the time, of the kingdom of Kanauj. Amśuvarman became paramount in Nepâl, and Âdityasêna in Magadha; and the opportunity was of course taken advantage of by Dharasêna IV. to assert his independence in the west of India. But, to say nothing of the improbability of the thing on other grounds, the fact that Amśuvarman became king of Nepâl is in itself enough to prevent our admitting the possibility of a conquest of that country by Dharasêna IV. Referring the same date of 326 to the three earlier proposed epochs, we have respectively A.D. 403, 492, and 516. For these periods there is, perhaps, no particular objection to our assuming, for the sake of argument, that Dharasêna IV. may have extended his power over a considerable portion of Northern India in the parts nearer to Kathiâwâḍ and Gujarât. But the Valabhi charters, in which a conquest so extensive as that of the whole of Northern India up to Nepâl, or inclusive of that country, would most certainly have been recorded, give not the slightest hint of any such event at any time in the history of the family. In fact, with the exception of the allusion to the overthrow of the Maitrakas by Bhaṭârka, they give absolutely no detailed information at all in connection with any of the successes claimed by the members of this family; which tends to shew very plainly that, from beginning to end, the Valabhi power was purely local. And, in connection with the earlier proposed epochs, even if Dharasêna IV. did conquer Nepâl, or Northern India up to the frontier of Nepâl, and did introduce there the era of A.D. 319-20, the question still remains, and cannot be answered,—Why should he act with such extreme inconsistency as to introduce there this era, which, according to those who have sought to establish those epochs, was not brought into actual use in his own territory; instead of the Gupta era, which he himself and his successors continued to employ for all the official purposes of their own kingdom?

[51] See Legge's *Travels of Fâ-Hien*, pp. 71, 76; Beal's *Buddhist Records of the Western World*, Vol. I. pp. xiii. lii. lv. and Vol. II. pp. 67 note, 70, 73, 77 note, 81.

And, that the Lichchhavis were then at least of equal rank and power with the Early Guptas, is shewn by the pride in this alliance manifested by the latter; exhibited in the careful record of the names of Kumâradêvî, and of her father or family, on some of the gold coins of Chandragupta I., and by the uniform application of the epithet, "daughter's son of Lichchhavi or of a Lichchhavi," to Samudragupta in the genealogical inscriptions. Again, the Allahâbâd pillar inscription shews that, even if Samudragupta did not make Nêpâl a tributary province, his kingdom extended up to the confines of that country.

There can be no doubt that **the Early Gupta kings must have known the nature and origin of whatever era was being used by their Lichchhavi connections in Nêpâl.** And the period established for Jayadêva I. approximates so closely to A.D. 320-21, that it needs but little adjustment to place the commencement of his reign actually in that year. This arrangement would give a perfectly intelligible reason for the origin of the era, which was clung to so persistently by his descendants that they continued the use of it for at least two centuries after the introduction of the Harsha era into Nêpal, and its acceptance by their immediate neighbours, the Thâkuri family of Kailâsakûṭabhavana. And no objection could be taken by the Early Gupta kings to the adoption of the era of a royal house, in their connection with which they took special pride. I think, therefore, that **in all probability the so-called Gupta era is a Lichchhavi era,** dating either from a time when the republican or tribal constitution of the Lichchhavis was abolished in favour of a monarchy; or from the commencement of the reign of Jayadêva I., as the founder of a royal house in a branch of the tribe that had settled in Nêpâl. But the question of the origin of the era is one, of course, on which further discoveries, especially if any can be made in Nêpâl, may be expected to throw more light.

BOOK NOTICE

A RURAL AND AGRICULTURAL GLOSSARY for the North-West Provinces and Oudh, by WILLIAM CROOKE, B.A., B.C.S. Calcutta: Government Press, 1888.

This is a book which should be in the hands of all those who really wish to obtain an insight into the speech of the peoples inhabiting the North-West Provinces and Oudh; but as it has been issued by the Government Press and is a purely Government publication, such is not likely to be its fate. It is printed and got up in the severely uninviting style peculiar to Government publications, and no one has any particular interest in its circulation; so it will probably be distributed to a few officials, some of whom will use it, but most of whom will pigeon-hole it, while the majority of scholars and others to whom it will be specially valuable will never even hear of it.

However, it deserves a far better fate than this. It is the result of immense labour and research at first-hand, and is simply loaded with philological and folklore information of the most valuable kind. The size of the book, or the length of an article in it, is no criterion of the labour bestowed on it. Its accuracy, moreover, is guaranteed by the author's name. Let us take an example at random.

"*Chânk* — [Skr. *chapa*, *charpi*] — (1) (*barakat kî miṭṭî*, *bachâran*, *chhâpâ*, *chattar*, *gobarchak*, *gobardhan*, *gobardhanâ*, *gobarî*, *thâpâ*), a piece of wood, etc., on which is an inscription in moist clay put on the heaped grain to keep off the evil eye and avoid theft. The inscription on it is usually *'aqabat ba khair bâd*, — *im in ki salâmatî* = invocations against dishonesty.—Upper Duâb. (2) The ceremony performed at the threshing-floor at the time of forming the grain into a heap for winnowing.—Upper Duâb."

Here every synonym given for the name of this ceremony means so much separate research, which shows only in *one* word at a time. The value, too, of unearthing such customs and their localities will be appreciated by every student of folklore and custom.

The book is further full of proverbs and saws, illustrating the life of the people and their habits of thought. Mr. Crooke claims originality of research here, having purposely avoided all reference to Fallon's *Hindustani Proverbs*, ed. Temple.

Illustrations of the severely practical type accompany certain articles not otherwise explainable. And lastly Mr. Crooke has used all the authorities procurable, including those invaluable mines of information about India — the *Settlement Reports*.

In a notice like this we cannot attempt to criticise the individual articles—indeed, for the vast majority we have nothing but praise. However, that on "Gûgî, Gûgapîr," might have been enlarged with advantage from Temple's *Legends of the Panjâb* and from *Panjâb Notes and Queries*.

With this one criticism we commend to the perusal of all who are interested in the philology, folklore, and ethnology of Upper India this very valuable addition to the anthropological literature of those parts.

i.

2

4

6

8

10

12

14

16

ii.

18

20

22

24

26

28

30

32

J. F. FLEET, BO. C.S.

SCALE 56

W. GRIGGS, PHOTO-LITH.

INDEX.

